

MILITARY ILLUSTRATED



£2.80 June 1994 Number 73

D-Day Special Armour

Samurai Sieges

The Nails at Alma

Special Forces Camouflage



**D-DAY POSTER
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Military Illustrated

Past & Present



Front cover
South Lancashire Regiment
of the British 3rd Infantry
Division storm ashore at
Sword Beach during D-Day,
6 June 1944. Detail of
painting by Chris Collingwood

Published monthly by
Publishing News Ltd.
Editor: Tim Newark
43 Museum Street,
London WC1A 1LY
071 404 0304

Advertising:
Ignacio de Murtinho-Braga
43 Museum Street,
London WC1A 1LY
071 404 0304

Typesetting:
PRS Ltd, 2 Avro Court,
Lancaster Way,
Ermine Business Park,
Cambridgeshire PE18 6XS
0480 414347

Printing: The Grange Press,
Butts Road, Southwick,
West Sussex BN4 4EJ

UK newsagent distribution:
United Magazines
Distribution Ltd.
1 Benwell Rd., London N7 7AX
071 700 4600

Subscription service:
Military Illustrated
c/o Lowtherbond Ltd
17 Bushby Avenue,
Rustington,
W. Sussex BN16 2BY
0903 775121.
Publisher's subscription rates
for 12 issues (one year):
UK, £35; other European,
£50; by Airspeed – USA,
\$100; other non European,
£60; all payments in sterling
or US dollars.

Military Illustrated Past &
Present is published monthly
by Publishing News Ltd.
The subscription price is \$100
for one year. Mercury
Airfreight International Ltd.,
2323 E-F Randolph Avenue,
Avenel, NJ 07001 (US Mailing
Agent). Second class postage
paid at Rahway, NJ, USA.

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Brutality

Could someone please explain to me how anyone who studies, models or re-enacts warfare of any period can be repulsed by thuggery, brutality or cruelty. War is brutality, thuggery and cruelty, whether you dress it up in Tarleton helmets, red serge, battledress or field grey! I am a British Army uniform and equipment collector, but at a recent collector's fair I was interested enough to examine a group of Iraqi items from the Gulf War, mainly due to the excellent MI article on Iraqi Army uniforms by Manuel Katz (MI 38). The group consisted of a pair of camouflage trousers, a web belt, an officer's beret, a shemagh, some documentation and sundry items. What made this group unusual though, was that it came with a photograph of the corpse of the Iraqi officer concerned. I have watched in bemusement as various military enthusiasts that I know have found the whole thing repulsive or distasteful. Why? This is part

and parcel of the subject behind all the badges, facing colours, wargames, models, camouflage patterns, medals and all the other studies that fascinate us all. So are the atrocities associated with the SS and others. Death, fear and horror are as much military history as courage, sacrifice and honour, and if you can't accept the reality, choose another subject. And, by the way, why has no-one decided that the Iraqis should be banned as well? Have we all forgotten the Kurds?

As for talk of warriors, terrorists and butchers, what makes one soldier right and another wrong? Both Waffen-SS and Serbian Army soldiers fight for what they believe to be right, whether you or I agree with them or not is immaterial, you can't just ignore ugly facts in the hope that they will go away. The Allies fought Nazi Germany for various reasons, in the case of Great Britain largely just to survive. This is past history and could be safely ignored if one had no interest, but to try to force the whole readership of MI to

ignore the ideological reasons for a war which is happening NOW, and in which this country (Britain), as part of the United Nations, is partly involved, is pure stupidity. Robert Ball, West Yorkshire

D-Day Competition Answers

The correct answers to the questions set in April and May are:

April

1. a) Brigadier-General Theodore Roosevelt Jr
2. b) Sergeant Major Stanley Hollis
3. c) Pipe Line Under the Ocean

May

1. a) William Millin
2. b) Major-General Maxwell D. Taylor
3. c) Landing Craft Assault

The winner of our aerial trip over the Normandy battlefields has been advised. His name, and those of all the runners-up will be published in the July issue of MI.

June Military Diary

1 June-	Exhibition of D-Day artillery.		4-12	D-Day Guided Tours of Winchester.	0962 848361
1 Aug	Fort Nelson, Fareham, Hants	0329 233734	6	Commemoration of 50th Anniversary D-Day Landing, D-Day Museum, Portsmouth.	0705 827261
1-4	Coastal patrol vessel "Medusa" veteran of WW II and D-Day. Display in Weymouth Bay & harbour.	0305 772444	7-12	Railway station in wartime; evacuees, troop trains, Swanage Railway.	0929 426310
1-5	Military vehicle rally, Tank Museum, Bovington, Dorset.	0929 403463	11-12	Warbirds Air Show, Swindon. Includes B-17 and other WW II aircraft. Largest meeting yet to date.	081 994 3375
2	Military and Veterans Parade Seafront, Weymouth, Dorset.	0305 772444	11-12	Gun firing days at Fort Nelson, Fareham, Hants. Including: Napoleonic event, Garde Imperial, French Infantry and 15th Hussars.	0329 233734
2-3	Military vehicle parade Old Battery, Isle of Wight.	0983 752401	18	War-time concert, Guildhall, Winchester.	0962 848361
3-5	D-Day Display, Tangmere Military Aviation Museum, Chichester.	0243 775223	18-19	Motoring nostalgia show, Beaulieu, Hants.	0590 612345
4	Crimean War Research Society Open Day, 11-3, National Army Museum, London.	0422 823529	25-26	Special D-Day event at Breamore House, Hants.	0725 22233
4-5	International Air Tattoo, RAF Fairford, Glous.	0285 713300	25-29	D-Day exhibition of WW II artefacts, Mountbatten Gallery, Portsmouth.	0705 826722
4-5	Soldiers '94, History in Miniature, modelling and re-enactment event, Eastwood Park, Giffnock, Eastwood, Glasgow.	041 633 2344	26	Flying afternoon, Duxford.	0223 835000
4-6	Various D-Day related events of importance, Portsmouth area.	0705 834800	26	Gun firing day at Fort Nelson, Fareham, Hants. Brockhurst Artillery with 18 pounder field gun.	0329 233734

The Royal Marine Commandos
(Castle Vision: E)
Paras — The Official Story
(Castle Vision: E)
Heroes (Castle Vision: E)
Colditz (Castle Vision: E)
The Battle of the Atlantic (DD
Distribution: E)

Castle Vision, in conjunction with the Services Sound and Vision Corporation, have released three videos, each lasting about 80 minutes and dealing with famous branches of the British armed services. They are introduced by either the Duke of Edinburgh or the Prince of Wales and are dedicated to the 'men who lost their lives serving God and Country'.

Royal Marine Commandos begins with the formation of the Admiral's regiment in 1664, raised and trained as a ship-borne fighting force. Marine operations in the Seven Years War, the Napoleonic Wars, the Crimean War and various Victorian Imperialist wars are given consideration. Their role in the abortive Dardanelles campaign and the Zeebrugge raid in the First World War are highlighted. During the Second World War, the Commandos were originally formed independently: the first Royal Marine Commando unit was raised in February 1942. Most of the programme deals with their involvement in various combined services operations, in particular the remarkable raid on St. Nazaire, the disaster at Dieppe, and D-Day. In the post-war era, there is footage of operations in Malaya, Korea, Suez, Brunei, Aden, East Africa, Northern Ireland and the Falkland Islands. The final part of the programme portrays their tough training regime. Included in the box is a reproduction of a Victorian poster featuring eighteenth and nineteenth century battle honours.



Still from the German feature film
Stalingrad, to be reviewed next month.

The Paras explains how this unit was formed in 1940 at the direct request of Churchill. Second World War exploits such as the destruction of a Sicilian aqueduct and the capture of secret radar equipment in France, are described. Their role in Operation *Overlord* and Operation *Market Garden* are considered in some detail. Post-war operations considered include Palestine, Malaya, Cyprus, Suez, Jordan, Kuwait, Aden, Brunei, Borneo, Northern Ireland and the Falkland Islands. The programme ends with a consideration of modern parachute technology, and the stringent selection procedures. Included in the box is a colour map of D-Day airborne operations.

Heroes gives examples of individual or collective acts of heroism brought about by circumstances during the Second World War. They include the civilians who manned the 'little boats' at Dunkirk, merchant seamen, the 'Few' in the Battle of Britain, bomb disposal officers in the Blitz, commando raids, Bomber Command personnel, SOE agents, the Long Range Desert Group, tank crews in North Africa, the defenders of Tobruk and Malta, and Orde Wingate's 'Chindits' in Burma.

Many individual acts of heroism are cited, gaining the individual concerned the Victoria Cross, or its civilian equivalent the George Cross, all too often posthumously. However, in attempting to cover too wide a field, there is no time to examine any act of heroism in sufficient detail, or attempt to understand the nature of heroism.

In contrast, by focusing on a particular group in a particular situation, *Colditz* comes closer to conveying the nature of heroism. Colditz (designated Oflag IVC) was a castle near Leipzig to which 'bad boys' of many nationalities were sent, typically those who had escaped twice from other camps. The documentary benefits greatly from location filming at Colditz showing where the actual escapes took place, explained by escapees. The video is narrated by actor Terence Alexander and includes brief extracts from Guy Hamilton's 1954 film *The Colditz Story*. Included in the box is a map showing the routes of thirteen principal escapes, drawn by camp security officer Reinhold Eggars. All the above videos are obtainable only through W.H. Smith.

The Battle of the Atlantic tells the story of the activities of

U-boats during the Second World War from the torpedoing of the liner *Athenia* just hours after war had been declared to the sinking of the *Avondale Park* three days after the German surrender. It covers the U-boat threat well but does not deal with surface raiders.

Documentary footage is used extensively, but sometimes badly out of context: famous shots of the attack on Pearl Harbour are used to illustrate bombing of submarine pens on the Bay of Biscay and it twice uses the famous shot of HMS *Barham* exploding in the Mediterranean! Included are reminiscences by merchant seaman and one U-boat commander. There are brief extracts from the wartime Shell documentary *MAC Ship* about a mercantile aircraft-carrier (escort carrier), and Wolfgang Petersen's 1982 feature *The Boat/Das Boot*. It ends with film of the 1993 50th anniversary celebrations held in Liverpool.

DD Distribution have also released *The Smashing of the Reich*, an 85 minute American documentary produced and written by Perry Wolff in 1962. It begins in Summer 1942 when all territory from the English Channel to Stalingrad was under Nazi control.

Stephen J. Greenhill

Somebody Else's War

Frontline report from the Balkan Wars by Paul Harris; 164 pages well illustrated with colour and black and white photographs and black and white maps and illustrations; ISBN 0-907590-43-8 hardback, ISBN 0-907590-42-X paperback; published by Spa Books, PO Box 47, Stevenage, Hertfordshire. Price £10.95

The author was trapped in Yugoslavia in 1991 when he was in Ljubljana airport and he decided to remain and report on the war. Paul Harris is an experienced writer and journalist, but not a war correspondent. This book presents the reader with a well written account of the current war in Yugoslavia. The author possesses a unique grasp of the underlying problems and political complexities of the war and sets them out well.

Reading his account of his trials, one begins to comprehend the sheer chaos of this war, its brutality, the murderous violence that one time neighbours will inflict on one another. The text is complimented with a series of maps which are essential for the reader to study so as to understand the situation. In addition, the colour and black and white photos give the reader a grim insight into the war — the visual impact of some of the photos is disturbing. There is nothing glamorous about this war and some of the combatants are very definitely war criminals. The author's courage in staying in difficult circumstances in order to write this account, is admirable.

Max Sarche

Osprey Elite Series; all 64 pages, c.40 mono ills., 12 colour plates; p/bk, £8.49.

E50: The Praetorian Guard by Dr. Boris Rankov, plates by Richard Hook.

It is rare to find a book from any hand but Peter Connolly's which offers any genuinely fresh material on the armies of ancient Rome in a well-illustrated, inexpensive, accessible format. Dr. Rankov is to be congratulated on this interesting, readable treatment. He is that rare combination — an academic who can address the kind of specific questions that interest military history enthusiasts and students of costume and armour, and who writes with both authority and enthusiasm. This excellent title covers the history and organisation of the Praetorians (including the *equites singulares* and the *Germani Corporis Custodes*); and, in a detailed examination of the written, sculptural and archaeological evidence, their uniforms and equipment. The monochrome illustrations are well chosen to support his arguments, and clearly printed. Richard Hook's plates are varied, colourful, and attractive, and the author's commentaries are full of detail and authority. Highly recommended.

E51: US Army Air Force: 2 by Gordon Rottman, plates by Francis Chin.

This is a companion title to Elite 46, which covered in great detail the USAAF's flying clothing and equipment in World War II; this present title covers the service and field uniforms and working dress of not only the wide range of USAAF air and ground units but also associated organisations such as flying cadets, the Air Women's Army Corps, Women's Airforce Service Pilots, Army Nurse Corps, and uniformed civilians of various categories. There is much material here which will be new to most readers, in the text, photographs and plates. Modellers will find the wide range of women's and

mechanics' uniforms and kit particularly useful. The packed colour plates recall Mr. Chin's work in Elite 46: his handling of textures, and his '1940s feel', are often very good, though the figures are sometimes rather wooden — but as factual reference they are mostly quite clear. All in all, a very useful addition to the reference library.

Historical Atlas of East Central Europe

by Paul Robert Magocsi. University of Washington Press; ISBN 0-295-97248-3; 192 pp; full colour 89 maps; index, tables, and bibliography; £49.99.

Volume one in the University of Washington's new series A

History of East Central Europe, this is the first comprehensive and systematic study of the area in any language, a region that is without doubt one of the constant points of conflict in European history as it falls between the superpowers of Germany and Russia and will unfortunately continue to be so. This atlas clarifies and illuminates the whole history of the area from AD 400 to the present with 89 full colour maps for each period showing the economic patterns, political boundaries, religious groups and conflicts, transport links and migrations of peoples. An essential reference book for anyone interested in the wars of eastern Europe.

New from Yale

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The British Army's Art of Attack, 1916-1918

Paddy Griffith

Battle Tactics of the Western Front

The British Army's Art of Attack 1916-18

Paddy Griffith



In this book a renowned military historian studies the evolution of British infantry tactics during World War I and challenges established interpretations of historians that British participation in the war was marked by a series of tragic debacles, incompetence and a thorough failure of technology. Instead, Griffith argues that by the end of the war the British army was demonstrating

a battlefield skill and mobility that would rarely be surpassed even during World War II. 304pp. £20.00

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D-Day Special Armour

British and Canadian DD Tanks

A notable feature of the D-Day landings was the presence of specially designed military vehicles. DAVID FLETCHER of the Bovington Tank Museum describes the performance of the DD tank.

Writing to Nicholas Straussler, inventor of the DD (Duplex Drive) tank, in March 1947, Colonel G.E. Prior-Palmer, erstwhile commander of 27th Armoured Brigade said:

'After the battle was over I went down and examined the beaches very carefully and discovered not less than ten enemy guns of calibre 50mm and over, all behind concrete embrasures completely defiladed from the sea but all knocked out by the enfilade fire of the DD tanks on the beaches. I am absolutely convinced that those guns could not have been knocked out by either air attack or seaward artillery and that only the DD tanks were able to take them on by diagonal fire from the

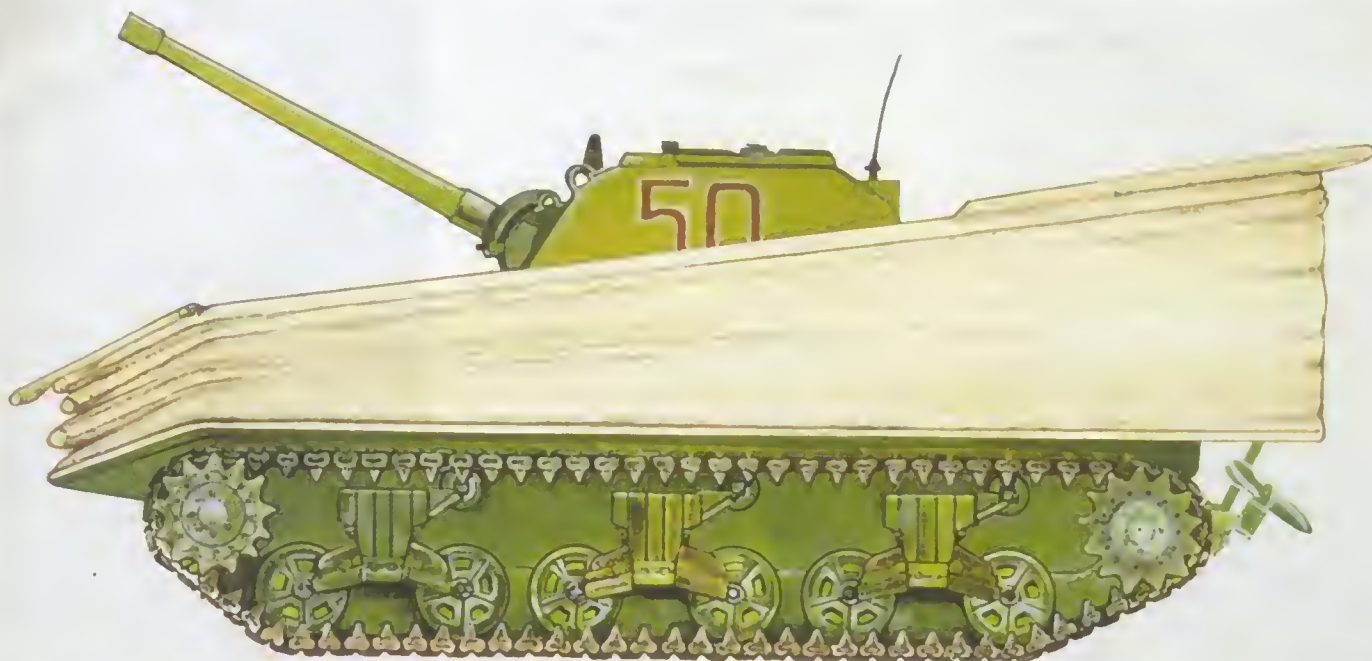
actual beaches. The result of this action was, that by H plus 20 there was no direct fire upon our infantry on the beaches, such as there was came from indirect artillery and mortar fire. As the result of this experience I have the greatest possible respect for the efficiency of the DD tank and consider it to be an absolute essential of a combined operation.'

Straussler devised the DD concept early in the war and, with official backing, built a prototype on a Tetrarch light tank in 1941. The principle was simple enough. The tank was surrounded by a tall canvas screen, roughly boat shaped, which created sufficient displacement to make it buoyant. The screen was raised by inflating a series of rubberized support columns and held rigid by a tubular metal frame. Finally a means of propulsion was created for the water, using a marine propellor — and it was this, the ability to use its tracks on land and a propellor in water that gave rise to the name Duplex Drive or DD.

Production got under way in 1943, the chosen tank being the Infantry Mark III, or Valentine. It was ideal in many ways, being relatively light, eminently reliable and with an automotive layout which made it easy to fit an extra drive from the gearbox to a propellor at the back. The drawbacks were that it was rapidly being outclassed as a fighting machine, at least by European standards and, when the DD screen was erected it could only travel with its turret trained to the rear. It was already appreciated that DD tanks could not fire while swimming, since the screen masked the gun, but when the screen came down it helped to have the gun already pointing at the opposition. Thus, when it was agreed that DD tanks should form part of the assault force on D-Day, Shermans were required since they were, in effect, the current main battle tank. Due to its chunky shape the Sherman could raise its flotation screen without having to traverse the turret.



Sherman DDs launching from an LCT 4 during a training exercise.



Although the system was applied to various types of Sherman the basic arrangement was the same in all cases. The tank was thoroughly waterproofed from the hull downwards and a water tight base, complete with a bow shaped section at the front, added just above track level. The screen was attached to this and, due to the weight of the Sherman (30 tons), rose in three distinct levels, each of which had its own horizontal metal frame to keep it in shape. The lowest level was composed of three layers of fabric, the next of two and the uppermost of one. With the screen erect the overall height of the tank was 13 feet. The screen was raised by a series of rubber tubes which drew air from two compressed air bottles stowed at the front. Once it was up the whole thing was locked in place by folding struts which were supposed to make it strong enough to withstand pressure from the water. Since the Sherman had a front mounted gearhox Straussler had to adapt the propellor drive and, in doing so, adopted a pair of three bladed props, mounted on hinged brackets so that they could be folded up, out of the way, when not required. Drive was taken from the tracks, which would be turning anyway. An additional sprocket was bolted to each of the rear idlers so that they were now positively driven by the action of the tracks. The idler shaft was extended inboard, passing through a 90 degree bevel box on each side into a simple dog clutch so that when the propellers were in the lowered position they were driven from the tracks. Both propellor mountings were also pivoted in a vertical axis so that they moved from side to side, to provide steering in the water. They were actuated by a lever in the driver's

compartment hut there was also an emergency steering position on deck. The tank commander had a tiny platform, attached to the back of the turret, from which he could see over the screen. One hand grasped a handle to keep him steady, the other held the end of an enormous tiller bar which was also linked to the props. The commander had a magnetic compass on a binnacle at his station while the driver had a gyro compass in front of him but neither seems to have worked well in practice. These two crew stations were also provided with very long extended periscopes so that, in theory, the tank could be operated closed down, if one could find people with nerve enough to do it. Inside the tank was a mechanical bilge pump since some water was bound to seep or splash in. A DD tank could do 4 or 5 knots in calm water and it was considered safe to operate at sea in wind conditions up to force 4.

With the invasion of Europe in mind it was agreed to convert one Armoured Brigade, the 27th with its three regiments; 4th/7th Dragoon Guards, 13th/18th Hussars and East Riding Yeomanry to operate DD tanks. In April 1943 all personnel were addressed by General Hobart, commanding 79th Armoured Division, briefed for their new role and commenced training. Initially they learned driving and maintenance techniques on ordinary Valentines and then, one by one, went down to a secret location in Suffolk, a large lake known as Fritton Decoy, where they practised launching — from a section of Bailey Bridge built out over the water fitted with the ramp of a landing craft — and swimming around on the lake. They also learned the nerve wracking art of

Side elevation of a diesel Sherman IIIDD showing the screen in the semi-collapsed position employed when a tank was firing from the shallows. Colour artwork by Jeremy Scutts.

escaping from a sunken tank using Davis Submarine Escape Apparatus. This involved entering the hull of a Valentine at the bottom of a twenty foot deep, water filled tank, and then shooting to the surface using self-contained breathing apparatus. This bulky equipment was subsequently changed for a new design, more suited to the confines of a tank hatch, and known as the Amphibious Tank Escape Apparatus (ATEA). The three British regiments were soon joined by two Canadian and pressure on the supply of tanks grew.

Sherman DD production, by Metro-Cammell, began with 100 M4A4 (Sherman V) machines. Plans were drawn up to concentrate on the diesel version and an initial requirement for 593 M4A2 (Sherman III) DDs was announced towards the end of 1943. Trials were also conducted on the ford engined M4A3 (Sherman IV). By 1944 circumstances forced a change of policy although the quantity remained the same. Now the scale was 293 of the diesel Sherman IIIDD and 400 of the Sherman VDD with its monstrous Chrysler multibank petrol engine. They were being issued to regiments on the scale of 20 per squadron although the normal arrangement in British regiments was to have two DD squadrons plus one equipped with conventional Shermans, including some Fireflies, and a headquarters squadron also operating ordinary tanks.

After leaving Suffolk the DD regiments, still in Valentines, were dispersed all around

Britain for sea training. The East Riding Yeomanry, which claims to be the first regiment fully equipped for the DD role, went up to the Moray Firth in Scotland. The 4th/7th went to the south coast; training at Gosport on the Solent and then outside Poole Harbour in Dorset where, on one particularly rough day in April 1944, six tanks went down in Studland Bay with the loss of one officer and five men. The 13th/18th went first to Gosport and carried out landing operations between Stokes Bay on the mainland shore and Osborne Bay in the Isle of Wight. They also spent a while in the Moray Firth before returning to the Solent area ready for conversion to Shermans.

In December 1943 the Nottinghamshire Yeomanry (Sherwood Rangers) arrived back in Britain from the Middle East and in January it was announced that they would be converting to a DD regiment. At about the same time the East Riding Yeomanry, then training with their DDs in the Moray Firth, reverted to a conventional Sherman regiment and after nine months intensive training the first fully operational DD tank regiment changed its role due, it is said, to a shortage of equipment. In a last minute effort to remedy this, assistance was solicited from the Americans. At the end of January, General Eisenhower had witnessed a DD demonstration and decided to adopt the type for the US Army, converting three tank battalions, the 70th, 741st and 743rd to the role. They were trained by 79th Armoured Division at Fritton, on Valentines and Shermans as they were available. Meanwhile a member of the British design team, armed with the necessary drawings, hurried over to the USA and, less than two months later, the

first 100 American built DDs were unloaded at Liverpool docks. They were mainly of the radial engined M4 and M4A1 type, some of which were subsequently used by British regiments.

The final line-up for D-Day was now decided. On the left, in the British 3rd Infantry Division sector on Sword Beach the 27th Armoured Brigade would land, consisting of 13th/18th Hussars, with A and B Squadrons in DDs, the Staffordshire Yeomanry and East Riding Yeomanry in conventional tanks. Next along, on Juno Beach, it was the turn of the Canadians. Their 3rd Infantry Division included Canadian 2nd Armoured Brigade of which 1st Hussars (6th Armoured Regiment) and Fort Garry Horse (10th Armoured Regiment) each had their A and B Squadrons in DDs. West again, on Gold Beach British 8th Armour Brigade formed part of the 50th Infantry Division Assault. It consisted of 4th/7th Dragoon Guards and the Sherwood Rangers (each with B and C Squadrons in DDs) and the 24th Lancers, in conventional Shermans, who did not land until 7 June.

Before looking at the landing operations in detail a few words must be spared for the landing craft, and the techniques adopted for handling DD tanks. The vessels used by the DD squadrons on D-Day were of the Landing Craft Tank (LCT) 3 type; nearly 200 feet long with a laden displacement of 640 tons. They were powered by twin Davey Paxman diesels or Stirling petrol engines giving a top speed of about 10 knots. Nominally capable of carrying up to ten Shermans, those allotted to the DD squadrons only took five tanks each, all of which were arranged herringbone fashion down the centre line in order to make



The DD escape apparatus was worn on the chest. A nose clip can be seen hanging from the pipe that leads to the mouthpiece.

launching easier. Thus eight LCTs were required to launch the two DD squadrons of a regiment. The key feature, of course, was the hinged bow ramp. It was designed to land tanks direct onto the shore, where the outer end of the ramp was supported by the beach. Launching at sea meant that the ramp had to be lowered some way into the water and then held there on its cables while a succession of 30 ton tanks drove onto it and then plunged into the water. There was a risk, at this point, of the tank's propellers striking the edge of the ramp and breaking so a modification had been introduced consisting of two steel channels which extended beyond the outer edge of the ramp and thus carried the tank well clear. This meant accurate driving at the critical moment but at least it helped to keep the tanks' vulnerable screens away from the sides of the landing craft's hull.

On 6 June a strong wind was blowing, Force 5 from the west, classed as a Fresh Breeze on the Beaufort Scale but enough to make the sea uncomfortably choppy, and rougher than DD tanks were designed to cope with. Due to variations in the tide on different beaches H-Hour was at any time from 6.30am onwards. At 6.15 the LCTs carrying A and B Squadrons, 13th/18th Hussars hove to some 5,000 yards off Sword Beach and started to launch their DDs. The launching procedure involved the tanks



DD tanks of 13/18th Hussars drowned by the rising tide. Extra stowage bins have been fitted to the rear of the turret and each tank mounts a 50

calibre Browning machine-gun on the commander's hatch.

slipping into the water in second gear, quickly changing up to third and moving away from the vessel at top speed for about 50 yards before slowing down to let the rest catch up. On one craft the leading tank tore its screen so its load was taken direct onto the beach. On another the ramp broke before the last tank could launch, and that had to be carried back to Britain. The remaining tanks, formed in lines, began to work their way through the sea towards the shore at something less than top speed. Because the compasses did not function well each squadron was accompanied by a Landing Craft Navigational, a 36 foot launch, which led the way, showing a light over the stern. About 1,500 yards from the shore the line ahead formation changed. The tanks began to spread out so that they approached the beach in line abreast. The weather was so bad that progress was slower than planned, consequently as they neared the shore they were overtaken by other LCTs carrying armoured engineer tanks of the next wave. At least two DDs were rammed or swamped by these craft but, in due course, 32 DD Shermans felt their tracks bite on the sand. Here, according to plan, they dropped the front end of their screens and started to engage targets from the shallows. The raised rear screens were supposed to prevent waves from washing over the engine decks and the idea was that the tanks would creep in with the advancing tide. However the tide was rising fast and many tanks, on trying to restart their engines, found that the water had got in and there they struck, firing until the sea rose to turret level.

As already noted 13th/18th was the only DD regiment in 27th Armoured Brigade. To their west Juno was being assaulted by the Canadians. The 1st Hussars considered the sea too rough to launch as ordered but reconsidered when some 2,000 yards out. Both squadrons, less one LCT load, swam ashore in a somewhat disorganised fashion, losing seven tanks on the way and having more disabled in the shallows from swamping. The Fort Garry Horse went nearly all the way in on their landing craft. They launched with screens up and propellers engaged but there was no real swimming, just a very deep wade. Although late they arrived concentrated in the right place and immediately set to work reducing enemy gun positions.

On Gold Beach 4th/7th Dragoon Guards made a dry landing, at least as dry as the approach of a landing craft would allow. They lost five tanks in this initial stage and fourteen more by the end of the day, in addition to suffering a bombardment from the cruiser HMS *Orion* and a strafing attack by a USAF Thunderbolt. Alongside them the Sherwood Rangers elected to launch at about 700 yards, all barring one LCT with a damaged ramp which went all the way in. Even in that short distance B Squadron lost three tanks and C Squadron five. Four more were subsequently picked off by a pair of 88mm guns on high ground overlooking the beach.

Once clear of the beaches the DD Shermans fought just like the other tanks in their brigades. In the main, it seems, they didn't last very long for Colonel Prior-Palmer

remarked to Straussler about one that was still with his brigade at Mont Pincon two months later, and that is thought to be exceptional. However it is worth commenting a little on their subsequent activities. Once ashore the flotation screen became a distinct liability. Fire was seen as the main hazard and it was suggested that, once the canvas dried out, it would be very vulnerable to attack by flamethrowers. A device codenamed 'Belch' had been developed when D-Day was being planned but it was designed to assist a tank through burning oil on the sea. Such defences had been built in Britain, and suspecting that the Germans were up to similar tricks a DD tank was equipped with a pump that drew in seawater and then sprayed it over the screen from perforations in the top rail. This was Belch and it was developed to production status. In the event it was never used. Trials with and without the device in burning oil off Studland beach proved that, beyond getting horribly dirty, a DD tank could sail through the flame without damage. Someone suggested spraying the folded screen while the tank was ashore, but nobody could figure out where the water was to come from. Thus most crews discarded their screens as soon as possible; they would not be needed again on these tanks. One DD Sherman, photographed at Ranville, simply had a small hole cut in the front so that the hull machine-gun could be used. Others, seen in Douet, had their screens cut off entirely and at least one was caught by the camera without its screen but with the remains of the rubber support tubes dangling untidily down the sides, like so many withered stems ●

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Sherman DD with its screen down, viewed from the rear. The propellers are folded up in the travelling position and, above the screen, can be seen some of the folded rubber support tubes and struts, the commander's tiller bar and conning platform with its grab handle and binnacle.



The Nails at Alma and Inkermann

The 95th (Derbyshire) Regiment 1854-55

Nicknamed the 'Nails' because of their stubborn bravery, the 95th served with distinction in the Crimea. Using contemporary letters and documents, PATRICK MERCER reconstructs their experience of the war.

The 95th (Derbyshire) Regiment embarked at Portsmouth in April 1854 eight companies strong. The 95th had been brought up to strength by volunteers from the 6th, 36th, 48th and 82nd Regiments and were, according to their own officers 'a magnificent body of men'. Part of the 1st Brigade of De Lacy Evans's 2nd Division, the Regiment disembarked at Kalamita Bay on 14 September after pauses, first at Scutari (where they had been re-equipped with Minie rifles) and then at Varna. They did not have long to wait before going into action.

The Regiment went into battle at the Alma on 20 September 738 strong. They found themselves to be the left hand regiment of the 2nd Division with the right hand regiment of the Light Division, the 7th Fusiliers, hard on their left flank. Three things happened which caused difficulties. First, the British deployment into line was cramped by the similar movement of the French on their right; this caused the Light and Second Divisions to overlap, namely the 7th Fusiliers and the 95th. Second, the Russians opened fire while the regiments were trying to deploy among dense vineyards which were made additionally difficult to traverse by walls, ditches and pits. Third, the village of Bourliouk, previously stacked with straw, was torched by retreating enemy skirmishers. A dense cloud of smoke drifted obliquely across the fronts of the Light and Second Divisions, adding to the confusion.

In these circumstances the 95th headed for the wooden bridge across the Alma in front of Bourliouk. On reaching it, however, one of those disconcerting cries which so characterised the Alma was heard, 'The bridge is mined!' The advance stalled and the Regiment lost any cohesion that remained. A minority crossed the river to the right of the bridge and remained with the rest of the brigade. The majority, including the Colour

party, veered hard to the left, attached themselves to the Light Division and fought their way into the main enemy defensive position, the Great Redoubt. The slope leading to the redoubt was raked by fire from both the enemy's artillery and his massed infantry. It was said that the colour parties were the especial targets of the Russian riflemen; certainly, the casualties around the Regiment's colours would support this. Lt Morgan's story is typical. As a Grenadier Company subaltern he should not have been with the Colours. Yet, short of the redoubt he was handed the Queen's Colour by Maj. Hume who had taken it from the wounded Ensign Bazalgette. In company with Pte. Keenan who was carrying the Regimental colour, he moved on towards the redoubt. The right wing of his coat was struck by a bullet and Morgan noticed a Russian reload and take aim at him again. With his hands full of Colour and armed only with a sword, he exchanged the Colour with the nearest soldier for his rifle and shot the Russian, afterwards taking back the Colour. His action might seem reasonable yet the next day he was summoned by the Senior Major Hume. Hume had had an eventful battle himself; his horse was shot from under him soon after crossing the Alma, he was slightly wounded and got a ball through the epaulette and, as we have seen, he carried the colours at one stage, all of which caused him to be recommended for the VC. Hume said to Morgan,

'Morgan, do you think that you were justified in shooting that Russian yesterday?' To which Morgan replied.

'I think I was, Sir.' Hume continued,

'I think you were not; it is not the duty of an officer. You should have told one of the men to shoot him.' Morgan replied,

'One of the men might have missed him; the fellow had just loaded and would have cooked one of us. I know he nearly did for me!'

Another tale involves Morgan indirectly. Capt. Heyland, officer commanding No 6 Company was seriously wounded (he was to lose an arm) close to the Great Redoubt. This did not stop him from capturing one of the 32 pound howitzers and scratching '95' on its carriage with his sword. Sometime later, delirious with pain, he was found by Lt. Carmichael of the Grenadier Company stridently asking for Lt. Morgan. Carmichael, seeing Heyland's grievous wound, ignored his request for Morgan and tried to dress him.

Heyland would have none of it and refused any help until he had found Morgan. In an effort to pacify him, Carmichael asked why he wanted Morgan. He received the reply,

'Morgan always carries a large knife; I need it to cut away this haversack which weighs so heavily on my arm.'

Lt. Macdonald of the Light Company was struck by a spent bullet. His letter to his aunt and sister makes interesting reading: 'We commenced our march the day before yesterday for Sebastopol and there was a slight skirmish on that day and then we encamped in lines for the night sending out companies as out picquets of which our Lt. Co. was one. Next day, yesterday, we resumed our march and after about 6 miles' march came up with the enemy, who had burnt a village in our front and behind the blazing buildings opened a fire on our centre of which the 95th formed a part. Half the Lt. Co. was skirmishing under the Captain, the remainder, under me, formed a support. They were attacked on the right (their left next the sea) by the French and the Turks and on the left by the British. We continued advancing our skirmishers firing on the enemy even until after their artillery opened fire upon us. At last the infantry skirmishers and all were ordered to lie down and our artillery opened upon them. The skirmishers and the support were between the enemy's and our only fire and balls and shells and rockets flew over our heads and broke up the ground in front and rear but without damage to us. The balls fell for the most part among the Regts to our rear. After a while the order was given to advance and under a frightful fire from shelling we advanced.

'I will tell my own little tale and from what have I heard it seems to be that of most I have met with. At the word advance we rushed to a wall and stayed there till the Regts came pretty near when I jumped over followed by my half division and made for another wall. By this time we were too near the enemy for their range, a mistake they soon altered and waiting there for a few minutes balls and grape whistled above us in the wildest profusion, I made a rush to the left got into the open, plunged into the river and tried to find my own Regt. but not succeeding I found my own men and stragglers and marched up to the 55th who were peppering away at a fort and preparing to charge and joined them having got leave from their Col. to take the right. Here we advanced up the hill and here I thought my

Storming the heights of Alma, 20 September 1854.
Painting by R. Caton Woodville.



Lt. Morgan's coatee, front and back.

end had come for I received a ball in my breast which would have knocked me down but for the man behind who however was knocked down. I thought I was killed and tore away my belt and to my great thankfulness discovered the ball had been stopped by a small ornament on my belt, where it is now. I got a severe contusion, but that is nothing. We then went on going up the last hill to the last entrenchment which we took. The rout of the enemy was complete but we have hard work before us but not thought equal to what we have gone through... I am now acting adjutant in charge of the remains of two Cos. There are only 11 officers now doing duty... Prince Menschikoff commanded in person and in his carriage were found letters to the Emperor in which he says that this place is not to be taken that he can maintain it against us for three weeks and that then if we have taken it by that time, we should have lost half our army. We took the heights and crossed the river in a few hours. They said we were not men but red devils. My escape is considered most wonderful. Numbers of officers come to look at my belt and the Colonel said he would rather have it than a medal.'

The 95th suffered badly at the Alma. Six officers were killed and 19 wounded whilst 22

sergeants and other ranks were killed and 126 were wounded. After the victory of the Alma, the Allies marched south and laid siege to Sebastopol. Passing to the east of the City, they established themselves south of the main harbour with the French on the left or west, and the British on the right or east. With a powerful garrison within Sebastopol and a further Russian army at large in the interior of the Crimea, the British right flank, rear and lines of communication to Balaklava were vulnerable. The task of the 2nd Division was to protect the exposed right flank as well as providing troops for the prosecution of the siege. On 25th October the Russians attacked Balaklava and captured some redoubts which had been built to protect the approaches to the port. Their ultimate aim was defeated by the stand of the 93rd Highlanders and the charge of the Heavy and Light Cavalry Brigades.

The next day the Russians again sallied out of Sebastopol with a view to testing and perhaps exploiting any weakness on the right flank. They had identified the high ground above the Tchernaya valley and opposite the ruins of old Inkermann as being the weakest point. So it was, for it was held thinly by a chain of picquets of the 2nd Division with few fieldworks to protect them. The 95th and

49th were furnishing the picquets on the morning of the 26th, the whole under the command of the 95th's Second Major, Maj. Champion. A classic delaying action was fought by the picquets against vastly superior odds before the 2nd Division appeared en masse. The Russians were driven off but the skirmish, which became known as the battle of Little Inkermann or The Sortie had given them valuable information.

The Illustrated London News's sketch of this action shows the British fighting in scarlet and shakos. Greatcoats were certainly being worn by the picquets and it seems likely that shakos had largely been abandoned. Morgan, present at the action and now in command of a company, wore cap and coat, both of which still survive. The tails of the coat have been cut away, probably to minimise the amount of mud which would cling to them and add unnecessary weight.

The Russians capitalized on the information gained on the 26th on the 5th November. Massive columns of infantry and guns converged on the 2nd Division's position from both Sebastopol and from across the Tchernaya valley just as dawn was breaking on a wet and densely foggy morning. The 95th had just returned to their

tented camp having been relieved from picquet. Little sleep had been had, they were hungry and wet. More importantly, their rifles were damp and as they were starting to clear the wet charges from their weapons, firing broke out from the area from which they had just come. Led by their Colours (which, due to officer casualties, were carried by sergeants) six weak companies doubled back to the area they had just left. Battle had already been joined and the 95th were held in reserve behind Home Ridge. The fight was desperately confusing; it was still foggy and the ground was thickly covered by stunted oak and scrub and broken by steep ravines and gullies. Enemy artillery was quickly in place but it took some time for British guns to be brought up.

For a while, both sides fought at very close quarters. Ammunition quickly ran short on the British side and the bayonet had to be relied upon to a great extent; fists, boots and stones served when that failed. The 95th were fed into the battle not as a whole, but as two Wings. The Left Wing reinforced the central part of the battle, while the Right, including the Colours, was sent to the right part of the field to counter attack the Sandbag Battery with elements of 3rd Grenadier Guards.

The Sandbag Battery was a two gun earthwork that was no longer in use, its guns having been removed once they had silenced some enemy guns on the other side of the Tchernaya Valley over which it looked. Of no tactical value, it had served to shelter picquets watching the right flank and had not been dismantled. It lay at the top of the precipitous Kitspur and was immediately concentrated upon by the Russian columns as they toiled up the approaching slopes as a tangible mark of success. It was to become an abattoir changing hands as many as eight times during the day. Parts of the 95th were involved in all of these attacks and each time seem to have been unable to restrain themselves from following fleeing Russians down into the valley below thus giving up the advantages of high ground.

Lt. Macdonald had been appointed Adjutant after the death of Capt. Kingsley at the Alma. As such he was mounted at Inkermann and rode back towards Home Ridge to get reinforcements and extra ammunition, having seen most of the defenders of the battery disappear in a joyous but ill judged bayonet charge down the Kitspur. Amid the fog he saw a group of great coated troops who were formed but not in action. He rode over towards them but, too late, he realised that they were Russians! A ball struck him in the leg and unhorsed him; luckily Pte. Murphy of No 6 Company was close to him. Despite being weak with dysentery, Murphy dressed Macdonald's wound, brought him his flask and pistol and half dragged and carried him away from the approaching Russians. Both men had to use

their weapons more than once to keep the enemy at bay until Macdonald ordered Murphy to leave him. Murphy objected.

'How can I show my face in the Regiment again if I leave you?' To which Macdonald replied,

'I command you, get to the rear!'

Murphy reluctantly obeyed and Macdonald faced the approaching enemy alone, kneeling on his one sound leg and making what resistance he could. He was soon overrun being slashed about the head, receiving numerous bayonet thrusts, having his fingers broken and finally being knocked unconscious. That night his body was discovered on the battlefield; his shako was full of blood and those who found him took him for dead. Luckily, he was recognized and looked after and, amazingly, made a full recovery. Later he returned to the spot in which he had lain and cut a walking stick from the stem of the thorn bush near to which he had been discovered. On his return to England he sent the stick to be mounted in silver. The jeweller, however, returned it to him mounted in gold and, as a token of his respect, would take no payment for it!

There were many acts of heroism at Inkermann and tales such as those of Pte William Melvin (who accounted for ten Russians before being killed himself) abounded. But the Regiment's losses were grievous: one officer and 30 men were killed whilst 4 officers and 110 men were wounded.

The 95th endured the rigours of the Crimean winter along with the rest of the army. Alma and Inkermann had depleted their ranks so much, however, that the burden of trench duty was felt particularly

hard. A steady stream of casualties occurred from enemy action but nothing like the same proportion as those brought about by disease induced by exhaustion and inadequate rations. Despite their numbers the 95th continued to find its quota of men for the trenches each day and took a perverse pride in the nickname which they acquired, 'The Nails'. It was said, 'There may be few of the 95th but wherever you put them they stick like nails!'

The diary of Pte. William Beddo of the Light Company gives some idea of the conditions of the siege that winter:

'In trenches at night, no bacca, no rum.

'On fatigue burying dead from hospital, very cold.

'All the men sick, only one officer to be found in the Regiment.

'Almost eaten to death with lice, have to scrape them out of shirt and trousers with knife.

'Offered 20 shillings for bacca, couldn't get it.'

For the assaults on Sebastopol on 18th June and 8th September 1855 the 95th were kept in reserve and they took no significant part in the major battles of the rest of the campaign. Probably the last fatality of the campaign was Pte. Flynn of the 95th who was struck by a shell fired from the north side of Sebastopol harbour after the City had fallen. The 95th remained in the Crimea until 18th June 1856. Their rewards included three CBs, 17 DCMs but no VCs, but there was little time to play the victor's part back in England. Within months the Regiment was to find itself on campaign again, this time in Central India •



Lt. Macdonald's Light Company wings.

The Making of a Military Book

D-Day Book Feature

Two years in preparation, *D-Day: Operation Overlord* brings together uniforms and equipment from two continents. TONY HALL and PAUL JOHNSON of Salamander Books recall the museums and collectors they visited to create the definitive photographic record of 1944 militaria.

In the late 80s, Salamander Books, a London-based publisher, developed a new style of presentation for its military history titles. Instead of illustrating text with just stills photography, artwork plates and maps, books would also feature original battlefield artifacts, historical uniforms, and weapons photographed on location at museums and at the homes of private collectors. Starting with a three book series on the American Civil War, and continuing with a history of the Pacific Theatre in World War II, it was decided in 1991 to begin development on a title covering D-Day and the Normandy campaign. Creating a D-Day book, however, was to produce more problems than the other four titles combined.

To begin with, the coverage had to be balanced. This meant we would need to find, somewhere, enough arms, uniforms and equipment of the 1944 period to illustrate the armed forces of Britain, the United States, Canada, Poland, France and Germany (both Heer and Waffen SS). To complicate matters further, we had set ourselves high standards in the previous books by featuring the uniforms and personal equipment of commanding generals. For example, the uniforms of Generals Lee and Grant, the pipe, glasses and service cap of General MacArthur and the personal swords of General Hideki Tojo.

We began our search in March 1992 at the most obvious location: the D-Day Museum in Portsmouth. With the enthusiastic help of curator Stephen Brooks we found and photographed an excellent collection of D-Day documents and landing maps including the complete orders for Operation *Neptune* — the naval operation to lift, land and resupply the invading divisions. It was an encouraging start, but to find the bulk of what we needed we would have to travel further afield. Our first shoot in the United States began at the end of May 1992. As usual, our location photography there was organised by Russ Pritchard, director of the Civil War Library and Museum in

Philadelphia. In his work for us, Russ combined the responsibilities of weapons expert, museum consultant and road manager.

Abilene in Kansas was the first of three locations on this trip. After flying into Kansas City, we drove west to meet Russ and photographer Don Eiler who had driven from the East Coast. We were in Abilene to photograph the uniforms and memorabilia of General Eisenhower which are kept in the magnificent surroundings of the Eisenhower Presidential Library and Museum — Abilene was where Eisenhower was born and where he is buried. Before we began with Ike, however, we congregated around an exhibit of a quarter-sized, highly-detailed rubber dummy paratrooper. This we naturally took to be one of the famous *Ruperts*, the decoys which were dropped over Normandy in the early hours of June 6th. On the verge of dismantling display cases and setting up camera, museum director John Wickman quickly told us that the dummy was in fact a prop from Daryl F. Zanuck's film, 'The Longest Day'. It turns out that after filming, Zanuck gave them to every relevant museum from Kansas to Normandy, and they show up with tedious regularity until we came across a real *Rupert* at the museum at Pegasus Bridge.

Aided by museum staff, we spent two days photographing Eisenhower's uniforms of 1944, together with a magnificent selection of some of the priceless gifts given to the general after the victory in 1945. They include a gold dagger from the Soviets, a gold and jewel-encrusted sabre from the Dutch and a gold Cartier cigarette case complete with General De Gaulle's engraved signature. With these shots in the bag, we began a two-day, 600 mile drive east to Kentucky. Our next location, the Patton Museum of Cavalry and Armor, lies inside the Fort Knox army base, and a mile from the famous Federal gold repository. Boasting a tank collection to rival that at Bovington, the museum also houses all of General George S. Patton's uniforms and personal items.

On the first day we photographed a full spread of Patton's uniforms and belongings. A little eerily, the nature of the general's death, in a road accident in 1945, means that many of his personal items are in exactly the state in which he left them. The uniforms also reveal that the man behind the historical image was something of a dandy. Many items of his uniform were tailored or hand made in

London, and most striking are a pair of silk braces complete with naked ladies. So far we had been very successful at Fort Knox, but there were two items that we were still desperate to photograph. Displayed in a free-standing case, Patton's monogrammed revolvers — a holy of holies for gun collectors — were wired to three separate alarm systems. We had already made enquiring noises about the pistols, but Charles had told us that removing them simply wouldn't be possible. On the second day, however, we brought the subject up again. 'Let me make some phone calls,' replied Charles. Half an hour later all the alarms are off, but then the real work began. It took five of us forty minutes to get the pistols out, but it proved worthwhile. To our knowledge it was the first time the pistols had ever been photographed in colour.

Our next destination was the US Military History Institute at Carlisle, Pennsylvania, another 450 miles east. Here we were to photograph General Omar Bradley's personal gear; but it was showtime when we arrived. A passing out parade for senior officers is not the place for scruffy-looking foreigners carrying miles of cable, and as often happened during these trips, security checks created delays. Once past the Military Police, we discovered inside that Bradley's kit was in fact being split up between Carlisle and other institutions. Despite this, we still managed to take a good shot of his helmet, pistol holster, jacket and boots. After Carlisle we were back on the road — 120 miles to Philadelphia to catch the plane home. The hire car had clocked 1,200 miles from Kansas to the coast.

While we were successful in finding the uniforms of senior US officers without too much difficulty, suitable memorabilia of British officers, notably that of Field Marshal Montgomery, proved next to impossible. Our researcher Tony Moore was to spend weeks ringing around trying to find some lead as to the whereabouts of those highly distinctive uniforms. And while he discovered berets in abundance — the field marshal appears to have distributed these across Europe — of the 1944-45 uniforms there appears to be no trace. In July we worked closer to home photographing uniforms and insignia of the 1st Polish Armoured Division at the Sikorski Institute in London, a gold mine of a military museum and rarely visited. We then made our second US visit in August, cramming in six locations in two weeks.

We began in Boston photographing some

of the enormous collection of US Army kit owned by Tony Stamatelos, and then headed south to the West Point Military Academy in New York State. The Academy museum holds a great collection including many unique items formerly owned by the Nazi leadership. We satisfied ourselves with some German uniforms and a fur-lined great coat owned by SS Oberstgruppenfuhrer 'Sepp' Dietrich. As in most of these shoots we were photographing many items held in storage rather than display, and we drew a small crowd of museum staff who gathered round to view their own material. As we travelled south, our next stop was a flying visit to Baltimore, where the Maryland National Guard Historical Society have Major General Charles H. Gerhardt's jeep. Gerhardt, commander of the US 29th Infantry Division landed on *Omaha* Beach with the vehicle which accompanied him throughout the war in Europe.

Back on the road by afternoon, we headed for a planned shoot at the US Army Ordnance Museum at Aberdeen, Maryland to photograph American and German small arms and crew-served weapons. Aberdeen boasts a large outdoor tank and artillery park, which looks impressive from a distance, having everything in it from a rail gun to a light tank. But inspection at close hand reveals that all of this hardware, some of it extremely rare with no protection from

the elements, is simply rusting away from the inside. There are plans to build a covered hall for some of the items, but most will eventually just fall to pieces. Without private funding the future of the park looks bleak. Our photos of some of the tanks may provide valuable reference when the last surviving examples are lost.

Our final US venue was to be at the home of private collector Allan Cors, in McLean, Virginia, just outside Washington. Allan is an arms collector *pars excellence*. Having grown tired of small arms he is now into tanks in a big way. We were there, however, to shoot some of his British and German weapons, but a problem immediately arose. The ceilings in his house are too low to set the camera up over the objects. Normally we require at least nine feet of height to position the camera; combine that with the 120 square feet of floor space needed to position artifacts, lights and backing paper and you realise that most domestic houses are just too small. Allan, however, suggested the solution, commandeering a room at his local church. We looked a little askance at this, given the subject of the shots and the large swastika banner we wanted to use as a background, but on the other hand the offer had been made and there was only one day of the shoot left.

So on the following day we took over the church's music room. The ceiling was high

enough, but with the camera legs fully extended photographer Don Eiler had to set a step ladder on a table and climb up to view the shot. The photograph we were trying for was a composite, a combination of two separate shots. At Aberdeen we photographed a German FG 42 and MP 44, both with scopes, a rare enough shot in itself. Now we were going to photograph Allan's collection of ten more German rifles and scopes to the same scale and fill up the rest of the picture. At reproduction stage the two images will be 'invisibly joined' electronically to form the complete image. Designer Paul Johnson scaled everything perfectly, Don Eiler didn't fall off his ladder, even under the gaze of those attending the church ladies' coffee morning, and we wrapped up the shoot with another unique photograph.

With over four weeks' worth of photography completed, it might seem as if we had everything we needed. Unfortunately the opposite was the case. By September/October 1992 the production schedule called for design to start; text was already coming in from the authors in the US, UK and Germany, but we were still short of British, Canadian, French and Waffen SS material. If we couldn't find that material by the year's end then we would have to seriously compromise the hook on which we had already spent over a year creating. The answer of course lay in Normandy. In the



Uniforms and belongings of Gen. George S. Patton, including (left) modified winter combat jacket,

(right) modified herring bone twill work suit, (centre) folding cot and Colt .38 automatic.



Pegasus Bridge photographed just before its demolition.



Photography sometimes necessitated removal of some of the ceiling panels in order to gain the required height for the shot.

first week of October, the Salamander team together with Russ Pritchard flew into Caen for the Normandy shoot. London photographers Dave Huckstep and Ian Bayley brought the camera gear over by the Cherbourg ferry, and by a miracle of organisation everyone met up at the village of Ste. Mere Eglise; one of the D-Day objectives of the US Airborne and now home to a museum and veterans' centre.

As the shoot began, everyone fell to their allotted tasks: Paul Johnson and the photographers with the technical nitty-gritty; Tony Hall and Russ Pritchard with the selection and identification of items and the on-going task of getting French museum staff to open up their collections. This proved very difficult at times, but with a mixture of British diplomacy and Southern charm doors opened. This was particularly the case at the Memorial Museum at Bayeux. We were relying on it for much of the missing material, but getting to meet the director Dr. Jean-Pierre Benamou proved difficult. However, we eventually met, and much to our relief Dr. Benamou warmed to the idea of his collection being photographed. In conversation we also discovered to our delight that he had much more in storage than could ever be displayed in the museum itself. And so the result of all our earlier perseverance was that we obtained access to perhaps the finest collection of Normandy campaign artifacts available; a militaria collector's dream of uniforms, equipment and insignia. In the ten days we shot at Bayeux we took 40 per cent of the artifact photos needed for the book.

Despite this success though, the work in Normandy also provided us with an object lesson that the past isn't always as well respected or preserved. At the Pegasus Bridge Museum at Benouville where we photograph Major Howard's personal gear, Piper Bill Millin's famous bagpipes and *Rupert*, we learnt that Pegasus Bridge itself had only months to go before it was completely demolished. Seizing the moment we captured it *in situ*. This year of all years, veterans will be returning to find the bridge in pieces, lying on waste ground with its future uncertain.

By the end of 1992 and after 12,000 miles of travel, we had assembled 130 separate shots displaying the finest collection of D-Day artifacts available anywhere. The next five months would see us locked away, feverishly bringing all that material together to meet our publishing deadline of September 1993. It's a sobering thought that from inception to publication, the book actually took more time to produce than the Allies required to liberate Europe •

D-DAY: OPERATION OVERLORD is available at £24.99. It was the second prize in our D-Day competition concluding last month.

Samurai Sieges

Japanese siegecraft, 16th century

For a warrior class whose sense of honour demanded face-to-face combat on an open battlefield, the problem of assaulting a fortress demanded special ingenuity. STEPHEN TURNBULL, author of several samurai histories, chronicles the development of Japanese siegecraft.

The most casual visitor to Japan nowadays cannot fail to be struck by the large number of well-preserved castles. They seem to be everywhere, and are frequently the major tourist attraction of their particular town. The military enthusiast, however, needs to approach them with caution, because these castles are not always what they seem. First, many are modern reconstructions built largely out of ferro-concrete, and have only the outward appearance of a former feudal grandeur. Some replace buildings destroyed comparatively recently by the bombing of World War II, but most have been rebuilt simply as tourist attractions where no castle has existed for centuries, and where the former castle was pulled down by orders of the Shogun.

Once these spurious historical monuments are identified the military enthusiast can concentrate on the few that have been preserved since feudal times, often with loving care and the most sensitive restoration. Examples of these are the superb castles of Himeji, Hikone and Inuyama. These are very useful for studying castle construction, defence and siege techniques from about 1600 onwards, but less useful for the majority of the battles which took place during the 'Age of War'. Such activities are better accessed through written and pictorial records, from which we can build up a comprehensive picture of Japanese siegecraft. These are our sources for the present article, which will concentrate on the period of greatest samurai activity, the years between about 1530 and 1615.

The samurai, as the military class of Japan, had first risen to power when they supplanted the Chinese-inspired Imperial Court during the latter half of the twelfth century. The samurai clans were largely petty landowners who held estates on the fringes of 'civilised' Japan, and it was the experience they gained in fighting rebels to the throne (for which generous rewards of land were granted) that made certain clans ambitious



enough to attempt to seize power for themselves. These minor skirmishes were often carried out from or against fortified positions. These rudimentary castles were invariably wooden stockades, reinforced where practicable by stones, and located if possible on the top of hills. Japan is very mountainous, and outside the main urban areas it is also still densely forested to this day. There was therefore no shortage of building materials or locations for these defensible positions. An early example is the fortress of Kanezawa, which held out against the hero Minamoto Yoshiie in the 'Later Three Years' War' which began in 1083. The fighting was fierce hand to hand combat using the recognised samurai weapons of bow and arrow, which at that time were regarded as more important for a warrior than his sword. There is no mention in the records of siege engines, tunnelling or the like, just a series of raids and assaults, with heroic individual challenges and sporadic attempts to settle the matter by burning the stockade to the ground. Similar activity is

Samurai spearmen attack the clay walls of a fortress. Defending archers wait behind an open fence built out like a barbican. (Japan Archive)

Overleaf

Richard Hook's reconstruction of a Japanese siege between 1590 and 1600, shows a loose palisade marking the limits of the lines and enclosing a 'No-Man's Land'. Into which a group of scouts have ventured to test the defenders' fire. The besiegers keep up a constant barrage of bullets and arrows from behind earthworks reinforced by rice bales stuffed with sand and bundles of green bamboo. Some are raised on mounds of earth, approached by bamboo ladders, and conceal the entrance to the tunnels which miners are digging to undermine the castle defences. On the far left a wheeled ladder is prepared, and in the left foreground a siege tower is being dragged along by local peasants. On the right an observation box on a pulley has been hauled up. The two curious 'crows' nest' siege towers are taken from contemporary illustrations. Note the complete absence of cannon, which played little part in siegework until the Winter Campaign of Osaka in 1614.





noted for the siege of the fortress of Ichi-no-tani in 1184, when the hero Minamoto Yoshitsune led his men in a desperate rear assault down a very steep cliff. His rivals the Taira then fought bitter hand to hand combats on the beach as Ichi-no-tani blazed behind them.

If a castle had to be built on a plain other natural defensive features would be utilised, such as rivers and swamps, and these would be built into the design by digging ditches and building bridges. None of these early castles has survived, but recent archaeological investigations have enabled scholars to reconstruct their authentic appearance for the first time. Sakai was one of the castles of the Hojo family, in a remote country district to the north of Tokyo. The whole area of the Sakai castle has recently been excavated, and a section rebuilt. The reconstructed walls are typical of the style that was to persist throughout the Age of War. The lower half of the walls is of natural wood, the upper half of mud plaster on a wooden framework. These walls, made from a mixture of clay and salt, were built around an open framework rather like European 'wattle and daub'. When the clay dried it produced a very strong surface provided it was kept dry — hence a little roof of tiles that runs all along it. The wall was usually left its natural colour, or could be plastered again on the outside, giving a yellowish finish, or white, using white plaster. On the inside of the walls was the biggest difference from comparable fortresses in Europe. There were no parapets and walkways as such. Instead the timbers which were part of the walls' construction were left protruding inwards. When required, planks were laid across them to form the *ishi uchi tana* or 'stone throwing shelf', from which archers, and later gunners, were able to discharge the weapons over the top of the walls or through specially cut slits and windows. The mound down to the ditch is of grassed earth. Elsewhere on the site a wooden watch tower has been rebuilt. This is again of a simple open construction and is similar to that in Hideyoshi's siege of the castle of Takamatsu in 1582. Takamatsu was a *hirajiro* (castle on a plain), and Hideyoshi used its natural features even better than the defenders had, by diverting a river to flood the castle, rather than providing its moat.

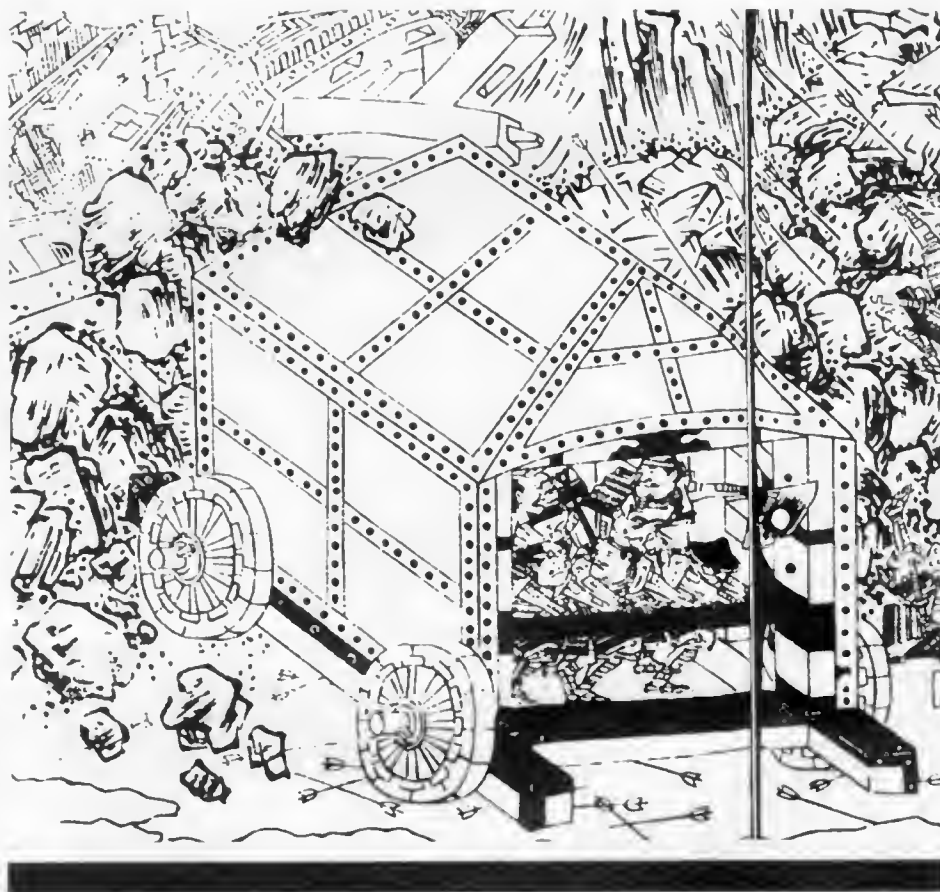
Takamatsu appears to have had stone walls on top of which appear to be similar mud plastered walls to those of Sakai. This was exactly the technique used, for by the end of the sixteenth century a remarkable technique had been developed for creating a sturdy, if low 'artificial mountain', on top of which the usual wooden walls reinforced with fireproof clay could be raised. The technique was to build a huge earth core, which was cut out of a hillock if such were available, and to face it with huge blocks of stone that sloped outwards quite markedly.

The blocks were dug deeply into the surrounding earth, and thus provided a secure foundation to take the weight of the castle tower buildings. Coupled with the need to garrison increasing number of troops, the new use of stone enabled architects to design castles that would be as much a symbol as a fortress, which would impress the enemy by the wealth of his rival as well as with the castle's defensive strength. The first example of this was Azuchi castle, which the dictator Oda Nobunaga finished in 1576. It not only utilised the best natural defensive features available on site, but sported an enormous decorated keep on a stone base, its plastered walls gaudily painted with designs of dragons. The Jesuit missionary Father Luis Frois visited it and compared it favourably to any of the fortresses he was familiar with in Europe. Hideyoshi's Osaka castle, built in 1586, used the local natural pattern of river and plain to produce a series of enclosed baileys, with defensive outer walls whose total perimeter was twelve miles! Inmyama castle makes clever use of a ravine that naturally divides the keep from the rest of the castle hill. Kuwana's outer wall ran sheer down into the sea.

The stone-base design also had the advantage of providing the best resistance to earthquakes, which have always been a problem in Japan. The great disadvantage, of course, was that a wall that slopes outwards

is ideally situated for attackers to climb, but once again Japanese ingenuity came to the fore, and trap doors similar to European machicolations were built into the towers, which later were also made to overhang slightly the stone bases. Kumamoto castle in Kyushu is the best example of this. Arrows could therefore be fired down on to the heads of attackers, in addition to anything else that the defenders could usefully lob in their direction, such as rocks which would bounce off the curved stone walls and create havoc. The defenders would be standing on an *ishi uchi tana*. Huge logs, held up by ropes until required, could also be employed in this fashion. Gatehouses, keeps and corner towers were therefore built with stone bases, and gradually the openwork towers seen at Sakai gave way to stronger yet more graceful multi-storey buildings with curved and tiled roofs that are found in surviving examples of castle construction.

The progress of an attacker could further be hindered by the use of caltrops, the metal spikes so arranged that they always landed with one spike pointing upwards. The samurai invariably wore straw sandals, so this was quite effective. Fences of stakes would also be built at the bottom of dry moats to slow down the attackers and thereby force them to provide better targets for sharpshooters from the castle. There were many variations on this. One was to use



Kato Kiyomasa's 'tortoise wagon' makes a breach in a castle wall. Impatient samurai also scramble over the rocks to attack it directly. (Japan Archive)

naturally spiked branches, another was to have sharpened bamboo stakes protruding from the ground. A series of small stakes to which ropes were tied would provide the samurai equivalent of a barbed-wire entanglement. Attackers could also be fired upon from wooden constructions erected within the walls, but not immediately touching them, so that an attacker who scaled the wall would have an impossible gap to cross, leaving him very vulnerable to counterattack. A variation on this was to make the defensive platform portable. The design was basically that of a military version of the portable shrines carried on the backs of fifty or so men during Shinto shrine festival. In place of the shrine there was a small defensive emplacement, which could be carried along the walls to where it was needed, and removed as soon as it was attacked.

The weakest points of any castle were its gates, and several attempts were made to counteract this. The gates were normally of massive timber construction with iron hinges, swung between a frame of solid carved tree trunks set into the ground and locked by enormous caulks of wood on the inside. They would be approached across a ramp, and covered on either side by guard towers so that the ramp could be swept by defensive fire. Usually the main gate itself was made into a gate-tower, with a wooden rampart erected above it. In more sophisticated designs the ramp would be replaced by a narrow wooden bridge which restricted the attackers' progress but gave him the minimum of cover. Several varieties of drawbridges were developed. Some were the common European notion of a bridge that was dropped across a chasm on hinges. Others were more ingenious, and one consisted of a bridge on wheels that was rolled out on existing narrow side supports across the moat.

By about 1550 the move from stockades on mountains to castles on stone slopes was given a dramatic impetus by the introduction of firearms. The first guns the Japanese had ever seen were brought by shipwrecked Portuguese traders in 1542, and within a remarkably short space of time the metal working skills of Japanese swordsmiths had been converted into those of gunsmiths. Although techniques of firearm production became highly developed, there was no parallel development in the casting of cannon, and the Japanese continued to prefer those they could obtain relatively easily from European traders. These were for obvious reasons usually limited to ships' cannon, and the Japanese continued to lack the ability to deliver fire from a distance until almost the end of the Age of War and the time of the siege of Osaka castle in 1614. There were therefore none of the terrific bombardments that blasted the walls of European castles.

As well as the technical features noted



Samurai fire matchlock muskets from a castle wall as the attackers try to fill the moat in with rocks. (Japan Archive)

above, there was also the factor of the traditional samurai spirit, which still regarded guns as rather cowardly, and much preferred a form of castle warfare that involved taking the fight to the enemy with hand to hand combat on the walls. Japanese siegecraft therefore developed along the lines of providing scaling ladders, siege towers, moveable shields and battering rams rather than cannon and catapults. There were several varieties of moveable siege towers. Some were like the familiar European multi-storeyed version. Another was like a simple staircase inclined at 45 degrees which could be wheeled up to a wall across a filled-in moat. Rice straw bales and rocks would be poured into a moat for this purpose.

The fight was taken to the castle gates by covered battering rams, which would be wheeled across the bridge, its roof of wet hides giving protection against arrows, bullets and rocks. The enclosed ram was just one version of the overall design called a *kanikosha* or 'tortoise wagon', of which the invention is credited to the general Kato

Kiyomasa. The collapse of a wall would be a great help to an attacker, and mining was developed to bring this about. It was first used successfully in the siege of Kaeyama castle in 1583.

There were occasions when a castle did not succumb to an all-out assault, and a long blockade became necessary. In these situations the whole area would be sealed off to starve the enemy out using elaborate siege lines which adopted several of the features of the stockade castle we noted earlier. At the siege of Odawara in 1590 the besieging camp became almost a town itself, and one suspects that the raids carried out against the castle served most valuably as a means of alleviating boredom. At intervals along the siege lines were placed openwork towers, ranging from solid constructions with roofs, to mobile ones on huge wooden wheels. One variety, credited to Takeda Shingen's strategist Yamamoto Kansuke, consisted of a box on a pulley. The scout would be hauled up to make his observations, and then hauled down as soon as the defenders got his range●



Hunter Group

Special Forces Camouflage

For the short period of its existence, the Hunter Group was one of the elite specialist units of the South African Defence Force. JEFF FANNELL and ROBERT PITTA describe its training and uniform.

Reticent almost to the point of paranoia, the South African Defence Force (SADF) has purposely and carefully guarded many of its elite units from publicity. In the past, press credentials have been carefully scrutinized and even the Army's own journalists and public relations officers have been denied access to and information about certain units. One of the least known specialist units of the SADF has been the Hunter Group. Throughout its existence the unit was neither clandestine nor shrouded in secrecy, but the Hunter Group was so unusual that many dismissed it as a fluke and hence little was officially, or unofficially recorded about the unit, their training, and activities.

The unit was unique and unorthodox for its time. Many of the original Hunter Group were later responsible for or assisted in the formation of other special SADF units. One of the most unorthodox and renown ex-Hunter Group members was 'The Carpenter', Col. Jan Breytenbach, who would later become commander of 44 Para Brigade as well as founder of the Pathfinders, 32 Battalion and the Reconnaissance Regiments.

In 1968 Commandant G. van Kerkhoven of the South African Irish was entertaining his idea of transforming elements of his

regiment into a highly trained, specialized counter-insurgency unit, unique in South Africa. Cmndt. van Kerkhoven wanted to introduce a standard of training for Officer's and NCO's that was superior to that of any available in the SADF at the time. He envisioned a highly skilled and motivated counter-insurgency Hunter Group 'scout' team attached to each infantry unit of the SADF.

In May 1968, with the assistance of Mr. Grant-Grierson, a former member of the Kenyan Police and a weapons and un-armed combat expert, Cmndt. van Kerkhoven put into effect the formation of and selection procedures for the Hunter Group and the first cadre was soon formed from volunteers from the SA Irish Regiment. Cmndt. van Kerkhoven adopted the Scorpion as the symbol for the Hunter Groups because, in his words... 'both will fight with a grim determination that will take a lot to beat...'.

Initially, only members of the SA Irish received Hunter training, but within a short time word of the Group's specialised counter-insurgency training and activities reached other units of the SADF and volunteers streamed in. The initial S.A. Irish Hunter cadre then handled the training and administration functions for the new arrivals. Trainees were strictly volunteer and were required to have completed their National Service before being eligible for Hunter Group training (all white males between the ages of 17 and 25 are conscripted into the SADF for a one year period). South of Johannesburg, at Doornkop Military Base, trainees underwent a minimum of 42 and a maximum of 240 hours of instruction and training over a twelve-month period, conducted almost entirely on weeknights and weekends for which they received no extra pay or allowances.

The basics of conventional tactics, patrolling, and first aid were taught but each Hunter was also expected to carry and be proficient in the use of a combat/throwing knife and to be able to drive a Jeep or Land Rover. Hunter training included many other types of training thought to be unorthodox for the average soldier at that time. Riot control, navigation, bushcraft and survival skills, stress and shock training, close combat, working with tracker dogs, informers or the local population, mines and demolitions as well as extensive weapons drill with the R1 7.62 mm rifle were also included in their training. The weapon drill

itself included a novel system of quickly positioning the weapon in order to fire instinctively at any target from any position similar to the 'Quick Kill' system later used by the US Army in Vietnam. The drill trained men to nimbly unsling their rifles, fall to the ground, find the target and fire within two seconds. Hunter Group members rated as among the best in South Africa during their time and this drill was eventually adopted by the entire South African Defence Force. Some members devoted additional time and qualified as static line parachutists in a civilian parachute course.

One of the stiffest courses of its day, Hunter Group trainees were taught guerrilla warfare techniques, terrorist tactics and theory from experts who had seen fighting in Vietnam, Rhodesia, Angola, or the Congo. Leadership of each Hunter Group was rotated constantly, giving each individual a chance to practice his own theories of initiative. Hunters were encouraged to out-think the enemy and make decisions in the field which was unusual at the time since most decisions were left to senior SADF officers in the rear. Courses were made as realistic as possible by such practices as trainees having to search dummy 'bodies' at night. Unbeknown to the trainees, the dummy had been stuffed and draped with goat's entrails. As a further technique to accustom the men to the rigors of war, trainees would often be promised a hot meal which would then either not be delivered, or eaten in their presence by the instructors (this psychological technique would later be extensively used in training by the SADF Reconnaissance Units).

After completing their 240 hours of training the volunteer instruction cadres were awarded a silver coloured scorpion badge with an infantry green background. Upon completion of forty-two hours of training other members were awarded a badge with a red scorpion on a saffron background for wear on their left sleeve. Later, the men who qualified for a more abbreviated course, were awarded a patch with the scorpion in green on a saffron background. A version with a gold wire scorpion on a black backing also existed but this appears to have been a dress variation for the instructor cadre. Apart from the training cadre who wore the badge of the SA Irish, the Hunter Group had no distinctive beret badge and the majority of trainees would wear the cap badge of their unit or simply the 'Bokkop' (buck's head) of the

Opposite

Top left, Hunter Group first pattern camouflage shirt, note the longer cut of the back of the shirt and the commercial manufacturers label. Top right, Hunter Group second pattern camouflage 'winter' variant smock, note the padded elbows, concealed pocket on left sleeve and the commercial manufacturer's label. Bottom left, Hunter Group second pattern camouflage 'desert' variant smock, note the padded elbows, concealed pocket on the left sleeve, the commercial manufacturer's label and the distinct lack of black colouring in this camouflage pattern. Bottom right, Special Forces field jacket, generally Special Forces like to be able to pass themselves off as enemy troops and have produced over thirty copies of foreign camouflage pattern uniforms, this one is an East German falling rain pattern.

South African Infantry.

The limited number of members who completed an overseas parachute course were issued with a small, sterling silver parachute wing. A cloth version also existed and was much larger than the silver dress wing, made of white and light blue thread embroidered on a dark blue cloth. Both versions closely resemble the current Israeli parachute wing. To add to the 'mystique' of the Hunter Group, a form of identification was issued to allow members access to the Doornkop base for their training. A black Hunter Group scorpion was printed on stiff white paper and slipped into a clear plastic luggage-tag type holder. Each of these identification tags were numbered and recorded against the holders name.

At that time a locally manufactured commercial camouflage clothing was available in a splotch pattern in shades of green, brown and mustard on a khaki background. The less expensive versions of these were a simple two pocket shirt, a four pocket jacket with almost clear, overly large buttons and trousers which were easily identifiable by the open, elasticised tops of the leg cargo pockets. The Hunter Group as a whole adopted this pattern as one of their own and the SA Irish cadre chose not only trousers with padded knees but also a loose

fitting 'Airborne style' smock which had two lower, external patch pockets, one slanted, internal upper pocket, and generally a concealed pocket on the upper sleeve and reinforced, padded elbows. At the time no other unit in the SADF wore a camouflage uniform and consequently the camouflage clad members of the Hunter Group were soon set apart from other SADF units. All camouflage uniforms worn by the Hunter Group were privately purchased by each individual hunter. The items themselves were available for sale to the general public and had the manufacturers label still attached.

Terrain and vegetation is variable in many parts of South Africa and changes seasonally. It ranges from rolling plains in the Highveld of the Transvaal or desert in the Karoo to dense, wooded forests in the Eastern Cape. Much of the operational area in South-West Africa is harsh and barren and suddenly ends in the almost sub-tropical regions of the Caprivi Strip or southern Angola. As an attempt to encompass these terrain variations the Hunter Group also used a winter and summer pattern of camouflage (this practice of winter and summer camouflage would later be adopted by South Africa's famous 32 Battalion). This pattern had larger but closer spaced

splotches of green, black and brown on a green background for summer and tan, brown and black on a khaki background for winter. There was also a variation of this pattern where the black is absent, giving it an almost 'desert' feel.

Initially the dream of one man, Cmdt. van Kerkhoven had foreseen the future need for Reconnaissance-type units in the SADF. An experiment in counter insurgency warfare, the Hunter Group had proved the feasibility, need and worth of the counter-insurgency concept as taught to men drawn from standard infantry units. Short-lived as it was, eventually over 700 men, including a detachment from the South African Navy, rotated through the basic Hunter Group training. Unfortunately for the Hunters but more fortunate for the SADF as a whole, the group and their unorthodox methods attracted the attention of Defence Force planners and the Hunter Group's concepts of training were incorporated as standard procedure for all SADF troops. Many members of the Hunter Group eventually went on to other SADF Special Force units such as the Reconnaissance Regiments and the first Pathfinder company, where their expertise and Hunter Group skills were instrumental in establishing training and operating techniques •



Concealed Internal pocket on the Hunter Group second pattern camouflage 'winter' smock variant.



Detail of padded elbow on Hunter Group second pattern camouflage 'desert' variant smock.

Isandlwana and Rorke's Drift From the Air

An appreciation of terrain is essential to understanding the course of a battle. IAN KNIGHT takes a flight above the most famous battlefields of the 1879 Anglo-Zulu War.

Our flight took off from the northern Natal town of Dundee, which was itself established near the apex of a triangle of land once known as the 'disputed territory', since it was claimed by both the British colony of Natal, the independent Zulu Kingdom, and the Boer republic of the Transvaal. These overlapping and longstanding claims were largely responsible for the troubled history of the country around Dundee; in addition to the Anglo-Zulu War struggles, the battle of Talana — the first battle of the Anglo-Boer War — took place right on the town's doorstep. From even a few hundred feet up, it is easy to understand why terrain played such an important part in the fighting in northern Natal; the countryside around Dundee is open and undulating, but broken here and there by a series of long, steep, flat-topped hills. Further off, the Mzinyathi river ('the water of buffaloes' in Zulu) marks the course of the old Zulu border. The crossing at Rorke's Drift is only a few minutes' flight away, and it soon became apparent why this remote spot achieved such strategic significance. The Drift itself is the best crossing point for miles; upstream the Mzinyathi flows like a broad brown ribbon through rolling, grassy hills, but just a few miles below the Drift it enters a narrow gorge, and the rest of its length is marked by impossibly rugged country, traversed by few enough roads, even today. When, in 1879, Lieutenant-General Lord Chelmsford, the senior British commander, decided to route one of his columns through Rorke's Drift, he was taking the easy road straight into the heart of the Zulu kingdom. Unfortunately, his very real concern that the Zulus might try to slip past him in the wilds on his right flank blinded him to his enemy's true intentions, with catastrophic results.

Whilst it may be true that the passing of a century has changed the African landscape less than it might a European counterpart, still there are subtle differences. It is one of the legacies of the apartheid era that human settlement in the area is uneven, with corresponding differences on the ground itself. In areas set aside as white farms, population levels are low, but the landscape

bears obvious signs of modern agricultural farming methods. Here and there commercial forestry has chequered the hills with plantation of imported timber. In areas predominantly settled by blacks, the population levels are higher, and over-grazing has had a detrimental effect on the grass cover, leading to soil exhaustion and erosion. In few areas today are the unbroken vistas of grasslands as evident as they were in 1879.

Our flight took place in January, at roughly the same time of year as the battles. In South Africa this is high summer, which on the eastern coastal seaboard means a time of hot sun and high rainfall. As a result, it's the time of year when the grass is at its longest and greenest, which presents a markedly different appearance from the yellow and brown shades of winter. This comes as something of a surprise to anyone visiting the country for the first time, since feature films, promotional videos and most tourist brochure photos are usually shot in the winter, when conditions make it much easier to get about!

Neither Isandlwana nor Rorke's Drift reveal any great lasting impressions cut into the landscape by the fighting. Both battles were quick and unexpected, and in neither were earthworks a feature. Nevertheless, particularly at Isandlwana, it is easy to see how the landscape affected the fighting. Isandlwana was much criticised as a campsite in the aftermath of the disaster, yet from the air its advantages are obvious. For one thing, the enigmatic and distinctive mountain of Isandlwana itself is a superb landmark; although not much higher than the surrounding hills, it draws the eye for miles around. Behind it — along the road from which the British had advanced — the country is rough and hilly, but in front, on the Zulu side, it stretches away open for miles. Pitched on the forward side of the mountain, the British camp was at the top of a gentle rise and should have commanded the approaches for two or three miles. It is flanked on either side by hills, but those on the left — the Nyoni or Nquthu range — do not seem threatening, and it is easy to see why Lord Chelmsford thought his greatest danger lay to his right front, where the rocky bulk of Malakatha mountain rises up like a castle wall, masking any Zulu movements in that direction. Sadly, Chelmsford underestimated the Zulu manoeuvrability; whilst he was searching the Malakatha, the

Zulu army slipped around his flank and struck at the camp from the supposedly safe Nyoni.

Even a quick flight above Isandlwana confirms the pattern of fighting suggested by contemporary accounts. In the aftermath of the battle, the British were unable to bury their dead until several months later. By that time there was little enough left to bury, and the remains were hastily bundled into shallow scrapes in the ground where they fell, and piled over with stones. Subsequent burial details piled more stones on top, and today they have been whitewashed and form conspicuous cairns. These poignant markers tell the story of the battle; they are spread thinly out on the firing line, where the defenders were first pushed out some distance from the camp itself. It seems curious in retrospect that they should have been deployed so far from supports, yet the firing line was anchored on the crest of a low rocky rise, and commands the dead ground which falls away in front of it. The position itself was a sound one, but events were to prove that there were simply not enough troops to secure it, especially given the intensity of the Zulu assault. When it became impossible to hold the line any longer, the troops fell back towards the camp, but the Zulus rushed in among them. The clusters of graves become thicker and more frequent, until they reach the foot of Mount Isandlwana itself. Here, on a natural saddle between the mountain and a kopje below it, the defenders attempted to make a stand. Until recently, local cattle and goats used to graze the site — a fence to keep them out was only erected two years ago — so the saddle is largely bare of grass, and the cairns stand out all the more starkly. Here many of the 24th Regiment, who provided most of the garrison, were overwhelmed, and their senior officer, Lt. Col. Pulleine, killed. Just below them a prominent cluster of graves marks the spot where Bvt. Col. Durnford, RE, rallied a group of Volunteer troops in an unsuccessful attempt to hold back the left 'horn', or flank, of the Zulu army. Pushed over the saddle, the survivors of this fighting were confronted by the Zulu right 'horn', which had slipped unobserved into the valley behind Isandlwana and cut off the line of retreat. The line of cairns veers off across country, through rugged country scoured by dongas (erosion gulleys), down towards the banks of a stream known as the Manzinyama. Here are the last clusters of graves, marking the spot where the last of the

infantry were brought to bay; as many as half the 24th may have died in this fighting retreat, rather than in the camp itself. The survivors were few enough; they still had to flee over a high ridge which lay between them and the Mzinyathi, the horder, and by the time they reached it part of the Zulu reserve had moved to cut them off. The spot on the river where the final slaughter took place has been known ever since as Fugitives' Drift. Here, several hundred yards across the river, half way up the hills on the Natal bank, lies the cross which marks the spot where the last of them, Lieutenants Melvill and Coghill of the 24th, were caught and killed. Yet this country was no less difficult for the Zulus to cross, and it is worth remembering that the regiments who went on to attack the British supply depot at Rorke's Drift had already run across at least fifteen miles of rough country before they launched into a new battle.

The site at Rorke's Drift had been a mission station in 1879, until the army requisitioned it, and it is still a working mission today. Despite its remoteness — it is fifty kilometers from the nearest town, Dundee — it is the scene of considerable settlement, all of it post-dating the battle. At the time of the battle, there were just two buildings at the post, used by the army as a store and a hospital. Neither of the original buildings remain; the hospital was burnt down during the battle, and the storehouse was demolished when the missionaries

returned to claim the site at the end of the hostilities. However, two buildings were built more or less on the foundations of the first two in the early 1880s: the oldest buildings on the site, they form the centre of a settlement which now includes a school and mission houses. One of these buildings, built on the site of the old hospital, greatly resembles the one burnt down in the battle, and today houses an excellent battlefield museum. The only other feature which can be said to date from the battle is the British cemetery, which lies behind the old buildings. The position of the Zulu graves remains obscure, despite markers placed on conjectured spots; they were apparently buried in large pits in front of the post, but the excavation of one likely spot last year failed to locate human remains, whilst nothing was revealed by the aerial search.

The terrain at Rorke's Drift has changed markedly since 1879. At the time of the battle, the ground was apparently open, apart from a patch of hush directly in front of the buildings. This hush was occupied by the Zulus, and provided a springboard for their attacks on the barricaded perimeter. Today, no trace of this hush remains, but there is a good deal more undergrowth elsewhere about the site. Nevertheless, from above, the extent to which the post was dominated by an overlooking hill — known to the Zulus as Shiyane, 'the eyebrow', and to the missionaries as Oskatsberg —

Opposite

Top, the saddle, or nek, below Mt. Isandlwana. The British camp was situated at the foot of the mountain, with the firing line pushed out to the crest of the rocky ground. The saddle was the site of the fiercest fighting as the British tried to rally; the graves can be seen funnelling towards this spot. The large cluster of cairns in the foreground marks the point where Bvt. Col. Durnford made a stand in an attempt to hold back the Zulu left horn. The Zulu pressure forced the remnants of the garrison over the nek and into the valley below. Bottom, overview of the site of Rorke's Drift, showing the mission complex at the foot of Shiyane hill. The Zulus approached the post from the direction of Fugitive's Drift, on the line of the road beyond the crest to the right.

becomes clear. A line of broken strata runs around the base of the hill just three or four hundred yards from the post, and Zulu marksmen posted here were able to fire straight down into the British perimeter. This fire made it impossible for the British commander, Lieutenant Chard RE, to hold the entire post, and forced him to withdraw to a final redoubt in front of the storehouse. From above, this last bastion, traced out by stones laid in the ground, seems pathetically inadequate; that the Zulus were unable to over-run it says everything that needs to be said about the desperate nature of the day's fighting, and the extent to which both sides were exhausted by their ordeal.



The Rorke's Drift mission; the original buildings were in the centre of the photograph and the terraces

occupied by the Zulu marksmen are clearly visible. The Zulu attack developed along a line above the

modern road, from the top right. None of these buildings were present at the time of the battle.



Horses on the Battlefield

This month, in our regular re-enactor column, PHILIPP J.C. ELLIOT-WRIGHT discusses the problems of presenting a fine cavalry charge.

For anyone who has either fought in or watched a battle re-enactment, it cannot be denied that even a few mounted men can add significantly to the excitement and spectacle of the event. For example, at the major English Civil War events of both the Sealed Knot (SK) and English Civil War Society (ECWS), several dozen mounted troopers are fielded, representing Prince Rupert's and Sir William Waller's Lifeguard's in the SK, and Grenville's and Hungerford's Horse in ECWS. Even smaller societies such as the Napoleonic Association with its 12th Light Dragoons and Vistula Lancers can field up to a dozen at a time. Probably the largest UK cavalry event was in 1992 when the mounted elements of the SK and ECWS came together to restage the first major clash of the English Civil War at Powick Bridge where some 120 troopers and dragoons took the field. In America, where inevitably everything is always on a larger scale, the 1988 Gettysburg event saw over 500 mounted troopers in conflict, whilst in Europe, the 1990 Waterloo re-enactment brought together over 200 horsemen from across the Continent.



12th Light Dragoons

The attractions of cavalry are obvious, but there are very serious considerations to be taken into account which makes fielding any group of mounted troops a major undertaking. The first is technical, one must be able to ride to a sufficiently high standard so as to safely control a horse in the frightening environment of noise and colour any re-enactment involves, while at the same time participating in the 'fighting'. Most societies with their own mounted element maintain a list of members who are trained and tested (British Horse Society Grade 2 is the basic) and can be allocated a mount. Not only must the rider be trained, so must the horse and there is a limited availability in Britain of such mounts. Second is money; most riders cannot afford to own and transport their own mount so societies have to find the very considerable sums involved which must include adequate facilities at each event. Even so, the prospective trooper must not only pay for their own uniform and equipment, but must also find the significant amounts of money needed to reproduce the saddlery, tackle and shabraques, which the horse needs if it is to complement the riders' own uniform and equipment. Thirdly, there is the question of the safe integration of mounted personnel amongst the vulnerable infantry. It is a testament to the safety of British re-enactment that in the 25 years of its existence, there has not been a single recorded serious injury caused by a horseman to an infantryman, although many riders have had a nasty bruise or two from falling off, much to the amusement of the infantry.

Staging public displays where there is to be mounted participation brings with it special requirements. Horses need lots of space to function safely in, not only to ensure sufficient room between mounted and dismounted participants, but also to keep well clear of the audience, members of the public having an amazing propensity to poke and otherwise upset the mounts! The larger the display area, the larger must be the viewing area for the audience. The ground itself needs to be firm, without rabbit holes or any other hidden dangers that might do harm to horse and rider, and the landowner must accept the inevitable damage hooves will cause. Further, horses need to be put out to graze with most displays being weekend affairs and horses often appear to have an innate desire to hurt themselves, so it is often desirable to have the services of a vet available. Finally, there must be suitable

insurance cover, and this, along with all the other requirements ensures that any event involving cavalry is a major logistical and financial undertaking.

While many societies have their own mounted units these are inevitably specific to the respective societies' historic period. One of the exceptions to this is 'The Troop', run by Alan Larsen, who seek to achieve a high quality mounted representation in a wide variety of periods. Often working with English Heritage, the Troop provides a number of mounted representations to add an additional dimension to displays and an example of this is their recreation of two Roman cavalrymen. The Special Events Unit of English Heritage has regularly worked with the Ermine Street Guard for many years and it was felt that a mounted element would be a valuable addition to the display of Roman Infantry. Consequently, English Heritage, as a special project, funded the equipping of two Roman Auxiliary Cavalrymen representing the 'Ala I Tungrorum' of the third quarter of the First Century A.D. While the armour and weapons of the troopers came from the Ermine Street Guard, English Heritage paid around £500 for each of the contemporary saddles which were made by the recognized expert in this field, Peter Connolly. Having completed this, the two mounted auxiliaries were able to prove an old Victorian myth very wrong, that without stirrups a Roman cavalryman could not stand the impact of a charge. In fact, the recreated saddles, which have four horns, one at each corner, held the rider so firmly in the seat stirrups become unnecessary and members of the Troop have been able to impress audiences at events with a wide variety of complex manoeuvres. It is also worth noting that great care is taken to provide small horses for these displays as the mount of the Roman period was noticeable smaller than today's modern horse.

For those wishing to see some of these mounted groups in action there are a number of displays this summer.

18th-19th June, the Ermine Street Guard and its mounted auxiliaries are at North Leigh Roman Villa in Oxfordshire, details available from English Heritage, 071-973-3396 (day).

16th-17th July, the Napoleonic Association will be at Bromsgrove, details available, 0483-574455 (eve).

28th-29th August, the English Civil War Society will be at Helmsley Castle, Yorkshire, details available, 0747-825693 (day & eve) •

DAWN WOOD is one of the dedicated group of craftspeople who produce authentic uniforms and costumes for re-enactors and museums.

Dawn Wood trained in pattern cutting and Fashion Design in the late 1970's, before working in the Film Industry at both Berman and Nathan's and Morris Angels, organising costumes for several major films, television and theatre.

She also had a stint at the Royal Opera House and a job as a part-time technician and occasional costume Lecturer at Middlesex Polytechnic before starting her own business in 1989. Although having worked on several films, such as making padded armour for Franco Zeffereilli's 'Hamlet', painting flags for Central Television's adaptations of the 'Sharpes' novels and making pantomime costumes, Dawn now mainly specialises in making museum quality reproductions for re-enactors, museums, (a recent 1930's case for Bromley Museum), and clients such as English Heritage, with great emphasis placed upon the correct cut and assembling methods peculiar to each period.

Where possible, depending on the clients' requirements, garments are hand sewn using linen thread, and several weeks of research are carried out, obtaining the correct fabric weaves, colours available, before scissors are put to cloth. Often three fittings are necessary

to obtain the perfect fit. With contacts in several museums, backroom visits are made to ensure that all work is as accurate as possible.

While being skilled in making costumes of most periods, Dawn now finds that most of the work currently undertaken in her workroom is of the Napoleonic period, which has been the mainstay of the business since making the Polish Vistula Lancer Tunics for the English Heritage Special Events Unit's formation of a Napoleonic Cavalry unit in 1992. Since then she has made several uniforms and both male and female civilian garments of the period, including three fully laced Hussar Uniforms of the 7th and 18th Regiments, a 1792 Naval Captain's Uniform and a Staff Uniform of the British Brigade. She also tends to make to order, preferring to make one outfit that fits a person well rather than churning out several items which fall apart after only a few wears. Items such as tight breeches and hose are very difficult to make to general sizes as they require careful fitting otherwise they will not stand up to the strain imposed upon them and split in embarrassing places.

Since opening her shop 'Ages Of Elegance' in Chiswick in October 1993, she has decided to use the shop front as a showroom for both herself and other craftsmen who sell to the same market, so helping these other suppliers find an outlet beyond their immediate Sutters

Rows. It is also helpful for customers to be able to purchase many of their requisites under one roof, from shoes to candles, mediaeval sewing kits to sword-fighting videos, Saxon and Viking Jewellery to 18th century coins, Furniture to Period Music Cassettes, as well as publicity material from many societies (both re-enactment and museum), events boards and publications such as 'The Archer's Directory' and the English Heritage Events Diary.

Having recently been made a member of the Guild of Master Craftsmen on the basis of the authenticity and quality of the clothing sold, Dawn is also a member of various societies, including being the Editor of the Mediaeval Dress and Textile Society, a member of the Council of the Friends of Fashion of the Museum of London, and the Living History/Women's Representative of the Napoleonic Association as well as being a founder member of 'The Salon' a Civilian Living History group of the Late 18th to mid 19th Century putting on displays for English Heritage's Wellington's Army events and the Napoleonic association.

Anyone interested in having clothing made should contact Dawn at *Ages of Elegance*, 480 Chiswick High Road London W4 5TF 081 742 0730. The shop is open to the public most days, 10am-6pm although you are advised to telephone first if making a special visit.



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Rex Whistler's War

The death of Rex Whistler while commanding a tank troop in Normandy on 18 July 1944 cut short a talented career as a military artist. JENNY SPENCER-SMITH of the National Army Museum recounts his war-time experience.

Reginald John 'Rex' Whistler was born in Eltham on 24 June 1905. From an early age he demonstrated an aptitude for drawing, and in 1922 he joined the Royal Academy School. Whistler spent one unhappy term there before applying to the redoubtable Professor Henry Tonks (a War Artist during the Great War) at the Slade School of Art who accepted him as his pupil. Tonks declared that Whistler was one of his best pupils and described him as one of only three or four people he knew with a natural aptitude for drawing. In 1925 Tonks helped Whistler obtain a commission to paint the murals in the Tate Gallery Refreshment Room, which he completed, aged only 22, in 1927. This launched his career. In the 1930s Whistler developed his talents as a muralist, theatre designer, illustrator and, to a lesser extent, a society portraitist. One of his most important patrons was Charles, Marquess of Anglesey, descendant of the commander of Wellington's cavalry at Waterloo. In 1936 Whistler painted a series of murals at Anglesey's country house at Plas Newydd, now considered to be his masterpiece.

On the outbreak of the Second World War, Whistler immediately volunteered to join the army. He detested war and could easily have worked with a camouflage unit or secured a position as an Official War Artist, but he felt that it would have been 'squalid' to seek some cosy position. In May 1940, after sending an illustrated letter of appeal to the Regimental Lieutenant-Colonel, Welsh Guards he joined their Training Battalion at Colchester with the rank of second-lieutenant.

Over the next four years Whistler continued to paint whenever his military duties permitted. During his time with the Army, he completed portraits and landscapes, designed sets for West End plays and ballet productions, as well as film designs, and illustrations for books and book dust-jackets. He also painted landscape targets, diagrams and kit layouts for his Regiment; produced Christmas Cards and dance posters; and executed various pictures and decorations, many of them humorous, to

brighten up the drab quarters allocated to his Regiment.

Whistler was extremely popular with both his fellow officers and his men. A senior officer of the Welsh Guards later said of him, 'some of the sketches and paintings which he did for us we shall always treasure. He made himself beloved by all of us, officers and men. His own Troop absolutely adored him, as well they might, for he was in truth a leader and a guide to them'.

In September 1941, the 2nd Battalion Welsh Guards became the 2nd (Armoured) Battalion in the newly formed Guards Armoured Division. Equipped with Cruiser tanks, they moved to Salisbury Plain for tank training. Whistler was posted to the Battalion, becoming a troop commander and he decorated the Officers' Mess at Colford St Mary. In February 1943 his Battalion moved to Thetford, 'fighting' its way across country in Exercise 'Spartan' and arriving on 16 March. In July they moved to Pickering in North Yorkshire for extensive training on the moors. During their stay they gave a Christmas party for nearly 300 local children. Rex Whistler, whose idea it was, prepared the invitations and decorated the stage.

On 27 June 1944 the Battalion embarked at Gosport for Normandy, landing at Arromanches on 29 June. Whistler commanded No 15 Troops in No 3 Squadron,

2nd (Armoured Reconnaissance) Battalion, Welsh Guards, under 32nd Guards Brigade. The Battalion spent two or three weeks camped in a Normandy orchard before crossing the River Orne to take part in Operation 'Goodwood', Montgomery's planned breakout to the east of Caen. On 18 July the Battalion advanced south towards Cagny. At about 3pm Whistler's troop reached a shallow railway cutting, which his two Sergeants crossed safely in their tanks. However, Whistler's machine came to a halt, slewed across the cutting, its tracks fouled in telegraph wires. Whistler allowed his crew to dismount while the tracks were disentangled, but almost immediately they came under German small-arms fire. Pinned down, the crew were unable to reboard their tank and so were unable to radio for assistance. Whistler took the decision to sprint across the cutting himself to the remaining two tanks and order them to shoot up the German position. He reached the tanks safely, but as he hurried back again to his own machine, a mortar bomb exploded at his feet, killing him instantly. He is buried nearby in the small Commonwealth War Graves Commission cemetery at Banneville-la-Campagne.

The 50th anniversary of Rex Whistler's death is commemorated by a Special Exhibition at the National Army Museum, open from 18 May to 18 September 1994.



Opposite:
The Master Cook 1941 by Rex Whistler. Portrait of Sergeant-Cook J.W. Issacs.

Above:
Rex Whistler (centre bottom) with the crew of his tank *Olympus* at Pickering, 1944.

Early Smith & Wesson Handguns

Originating in the same period as Colt and Winchester, Smith & Wesson soon developed a fine reputation for single action revolvers. MAX SANCHE describes these early models.

The earliest Smith & Wesson handgun is their magazine pistol, patented 14 February 1854, No. 10535. Essentially, it resembles a small underlever Winchester rifle action whereby you cycle the trigger guard to transfer a round from the under barrel tube magazine to the chamber. What was of interest was the ammunition, it essentially was a hollow based lead bullet, with external grease grooves, containing lubricant, to prevent leading. Into the hollow base was placed a black powder propelling charge and this was sealed with a cork wad, within which was a small charge of fulminate, held in place by a disk. The blow from the firing pin ignited the fulminate which in turn set off the main charge — there is *no* cartridge case, it was caseless ammunition — proving there is nothing new.

The Smith & Wesson Company did not pursue this design concept and sold it to a shirt manufacturer, Mr Oliver Winchester of New Haven, Connecticut, which eventually became the Winchester Repeating Arms Company — the pistol design evolved into

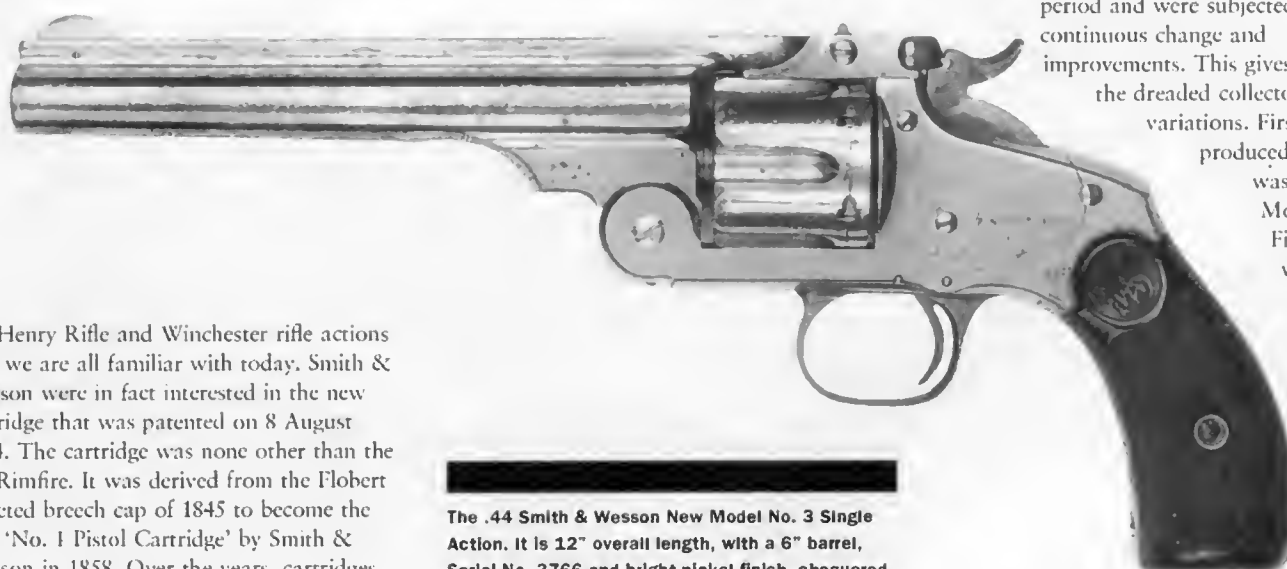
case.

It cannot be stressed enough that the success of any weapon system starts with the effectiveness and reliability of its ammunition. On 8 August 1854, Smith & Wesson patented their self contained metallic cartridge; basically the case was fabricated from copper and had a rim into which the fulminate priming composition was spun — this was held in place by a fibre wad above which was the 3 grain propellant charge — topped by an outside lubricated 33 grain lead bullet that was firmly crimped into the case. This making a self contained round, ignited when the rim was struck compressing the unstable fulminate contained within the rim. This is essentially the .22 Rimfire we have today. In the 1960's, U.S. production was estimated at three billion rounds per year. Alongside the magazine pistol, the partners had developed a small .22 revolver to fire this new cartridge. There was, however, a constraint in that Colt had a basic patent on revolver design which was due to expire in 1857, and which they were waiting for. Yet another problem came to light when it was found that a Colt employee, a Mr Rollin White, had already patented an essential feature of the new revolver design, patent No. 12649 of 3 April 1855. This being the requirement to bore the cylinder from end to end to accommodate a metallic cartridge.

Smith & Wesson did a deal with White and was granted an exclusive licence to use his patent in return for royalties of \$0.25 per revolver. This exclusive right was to last from 1856 to 1872.

So Smith & Wesson commenced production of the world's first successful cartridge Rimfire revolver and this gave them a virtual monopoly in the U.S. for several years. It was not a manstopper, but nevertheless a very attractive little pistol with its metal plated bronze frame and its 'midnight blue' barrel and cylinder. To the modern eye it is a strange pistol and is known as a 'tip up' whereby the barrel is secured to the frame at the top by a hinged joint forward of the cylinder. The bottom of the barrel is secured to the frame by a spring catch, thus to unload the weapon, the barrel is unlocked using the bottom latch and swung up and over on the upper hinge joint. The seven shot cylinder is removed and the rod projecting from underneath the barrel is used to punch out the fired cases, after which the cylinder was reloaded, replaced in the frame and the barrel swung back into place. The lockwork is single action, that is, the hammer has to be pulled back to full cock and the sheathed trigger is pressed to fire the weapon.

Approximately 11,000 model 1 first issue were produced over a three and a half year period and were subjected to continuous change and improvements. This gives rise to the dreaded collectors variations. First produced in 1857 was the Model 1 First Issue with its



The .44 Smith & Wesson New Model No. 3 Single Action. It is 12" overall length, with a 6" barrel, Serial No. 3766 and bright nickel finish, chequered hard rubber grips. The side plate is engraved 'Bob Ford Killed Jesse James with this revolver at St. Joseph, MO. 1882'. This pistol was sold by Wallis & Wallis on 28 April 1993 to a postal Bid of £105,000 to the American collector, Mr S McGhee. (Courtesy Wallis & Wallis).

the Henry Rifle and Winchester rifle actions that we are all familiar with today. Smith & Wesson were in fact interested in the new cartridge that was patented on 8 August 1854. The cartridge was none other than the .22 Rimfire. It was derived from the Flobert bullet brecc cap of 1845 to become the first 'No. 1 Pistol Cartridge' by Smith & Wesson in 1858. Over the years, cartridges have been made in calibres up to 1.00 (one inch), but due to the inherent weakness in their construction, are now mainly confined to .22, the other larger calibres being manufactured using the stronger centrefire

oval bronze frame with a round access plate on the left hand side, the frames were generally silver plated, barrels and cylinders a rich royal blue, this was later also available in silver plate. Collectors recognise six variations from Model 1 First type to Sixth type, some being quite insignificant. However, the most noticeable changes were in the lower spring latch which in the early specimens is a flat spring and changed to the more frequently seen spring loaded catch that moves vertically in the barrel to effect locking and unlocking. The company offered as an optional extra, a distinctive hard rubber or Gutta Persha case for this pistol. It was available in two styles, one had a picture of the gun on the lid, the other a pseudo stand of arms. The case was moulded to contain the pistol and ammunition and was sold to dealers for \$1.25 from 1858 into the mid 1860's.

With the building of a new plant Smith & Wesson redesigned the Model 1 replacing the oval frame with a flat sided one which made for easier machining, the round side plate was replaced by a larger plate that gave access to almost the entire lockwork which made the hand fitting easier. The hammer was simplified as was the cylinder stop. Whilst the Civil War raged, there was an unprecedented need for handguns and Smith & Wesson marketed 2nd Quality guns with cosmetic casting defects in the brass frames at \$2, less than its 1st Quality weapons. 2nd Quality weapons are less common and therefore now command higher collecting values!

With the end of the war and a drop in sales from 20,000 to 8,000 pieces per year the Model 1 underwent a face lift. It was fabricated entirely from wrought iron and had an alternative 'bird's head grip'. The company did some aggressive sales marketing overseas which resulted in interest from Europe and Russia. Production was terminated in 1882 and it was ten years or more before Smith & Wesson produced another .22 pistol. This is surprising in view of the popularity of this cartridge. As I mentioned previously, the .22 round is not a suitable defence round, its terminal ballistics are poor. Smith & Wesson were well aware of this, and that Colt and Remington were producing pistols of suitable power, albeit muzzle loaders.

Rimfire rounds in the early days tended to swell at the base on firing. One solution was to have a revolving recoil shield, but this was not viable as it was expensive and the company, when designing the new .32 Rimfire revolver, found the solution whereby there was a projection behind the firing chamber which constrained the case bulging and yet allowed the cylinder to rotate for the next shot. The new .32 Rimfire revolver was known as the Model 2 Army, essentially a scaled up Model 1 second issue. However, the frame was of wrought iron and the



Smith & Wesson Target Revolver, made in .45, .44, .38, and .32 calibre.

cylinder capacity was reduced to six rounds. It was an immediate success, marketed only eight weeks after the commencement of the Civil War. The Model 2 was available in four barrel lengths, 8", 6", 5" and 4" and the company was in full production from 1862 to 1865 to the exclusion of other orders. The total production exceeded 77,000. One reason for its popularity was that Union Army Officers could not wear outside holsters, so this Smith & Wesson could be concealed and not betray its presence with any bulge, together with the fact that it could be rapidly reloaded compared to a muzzle loader. Another aspect which enhanced sales is the public's lack of knowledge of firearms and their readiness to go into combat in blissful ignorance of their effectiveness.

Pistol shooters, then as now, wanted something different — a smaller gun firing the .32 Rimfire cartridge. Smith & Wesson had the solution but lacked the manufacturing capacity so it was subcontracted to Savage & King to fabricate the main components and Smith & Wesson were to assemble them into a new medium size revolver. This model resembled the Model 2 but was of reduced size and was known as the Smith & Wesson 1-1/2 First Issue or the Old Model 1-1/2. This weapon had a five shot cylinder with the cylinder stop relocated in the bottom of the frame, activated by the movement of the hammer. The 3-1/2 barrel and frame were of wrought iron, the grip was similar to the Model 2. However, there is a Second Issue variant with a bird's head grip and an old style cylinder stop at the top of the frame. The company produced a reduced

charge cartridge for this model, known as the .32 Rimfire Short — if you wished you could still fire the longer and more powerful round for the Model 2 in it. Over 93,000 were produced until 1875, when it was discontinued, as the company had already designed a top break revolver in 1869.

If readers are familiar with the top break Webley, then they can imagine the general configuration of the Smith & Wesson Model 3. This pistol was based on the design work and patents of W C Dodge and A C King, whereby the barrel is hinged at the bottom of the frame and latched at the top in front of the hammer. When you opened the pistol a star shaped extractor rose up to expel the used cases. This was achieved by linking the extractor to a rack and cam arrangement which was actuated by the movement of opening. The extractor then snapped back into position for reloading. Thus you had rapid simultaneous ejection and very easy reloading. There was a knack to this, the gun had to be opened briskly otherwise some of the empties trapped underneath the ejector. Partial reloading, as you well appreciate, was difficult, as all rounds were ejected.

The Model 3 and its variants are magnificent and desirable weapons and the first large calibre Smith & Wesson. They are occasionally chambered for the old .44 Rimfire Henry round, but were more commonly found in the .44-100 centrefire, or .44 Smith & Wesson American Cartridge. This pistol was originally produced with an 8" barrel although shorter barrels were available. The finish was blue or nickel and they had square butts with walnut grips. The



Smith & Wesson with Rifle Stock attached.

United States Army used them as well as various police departments who appreciated its fine accuracy and balance, as well as its 200 foot lbs of energy produced by a 218 grain lead bullet propelled by 25 grains of powder.

Whilst United States sales were relatively modest, His Imperial Majesty the Czar of all the Russians, decided to equip the artillery and cavalry with this Smith & Wesson and placed an order of 20,000 weapons at \$13.02 each. Some modifications were needed to fulfil the order, these being, a change in cartridge, but not the calibre, and a cyrillic inscription on the barrel. During the production run of the Model 3 Russian First Model, the Russian inspectors General Gorlov and Captain Ordinec, who were in the Smith & Wesson plant, recommended certain changes, such as the hammer locking the barrel, when in the down position, modifications to the lockwork, the addition of a distinctive spur to the trigger guard, a shorter barrel, and a projection to the rear of the frame that fits into the thumb web. Approximately 85,000 were manufactured, designated by the Russians Smita I Vesona Obrasec No. 2 engraved in cyrillic script on the barrel (i.e. Smith & Wesson Model 2).

In addition to American made weapons, revolvers were also made under contract by the Ludwig Loewe Company, in Berlin, both for the Russians and Argentina. Revolvers were also manufactured in the Imperial Arms Factory at Tula, and at least one other Russian arsenal. The Spanish produced them for their own use in the Toledo arsenal, and the Belgians also made copies. Turkey and Mexico adopted these pistols, the former bought 3,000 No. 2's and 5,600 No. 3's. Russia, in 1904, gave a gift of 30,000 pistols to Montenegro. The Japanese Navy had 5,000 2nd Models issued and were marked with an anchor forward of the trigger guard.

Other Japanese agencies also adopted this pistol. A small number of new Model No. 3's, 250 in all, were purchased for the Australian Colonial Police.

One variant of the Model 3 series which is of interest is the Schofield Model. Briefly, Smith & Wesson were interested in getting government contracts. They were supplied in 1870, at the suggestion of Major G.W. Schofield, a Model 3 and 500 rounds of ammunition for tests, (his brother was President of the Small Arms Board!). As a result, Schofield recommended changes and the company agreed to pay him a royalty per revolver. This resulted in a new Model 3 Schofield revolver 1st Model. It incorporated a number of patented changes including a new cartridge, the .45 Schofield, a new latch on the frame, a sighting groove, a cam operated extractor system and a new cylinder removal arrangement. The new cartridge was shorter than the Army's existing .45 revolver cartridge and there were mix ups in the field when the wrong ammunition was issued. There was a modification to the latching system giving rise to a second model. Revolvers, when withdrawn from service, had their barrels shortened to 5" and were popular on the Frontier, Wells Fargo Express Company were known to use them.

One unusual variation of the Model 3 was the .320 Revolving Rifle. Essentially the Model 3 frame with an adjustable trigger, equipped with either a 16", 18" or 20" barrel and having a distinctive red rubber forend and grips. It had a shoulder stock which had an additional peep sight and the foresights were interchangeable. It was not a popular item. Another unpopular but rare gun, was the New Model No. 3 .38 Winchester, only 74 were made and they are highly sought after.

The Smith & Wesson No. 3, it is

believed, were the most widely used large calibre cartridge revolvers of the period — over 300,000 were made. They were used in the 1877/79 Russo Turkish war, 1898 Spanish American war, 1904/05 Russian Japanese war and World War I and II and probably still turn up occasionally in the Balkans. Other single action models included smaller .38 and .32 pocket revolvers produced in a variety of styles, sheathed and conventional triggers — various finishes and barrel lengths.

A few anecdotes that I feel are worth mentioning concerning the weapons described in this article include the only casualty in the Civil War inflicted with a Smith & Wesson .22 when the 76th New York Volunteers were on parade. A Captain McNett was being disciplined by his friend Colonel Green who he did not take seriously. Colonel Green shot McNett in the chin. The subsequent trial was deferred for some years during the hostilities and the jury were unable to reach a verdict. In 1872 there was a buffalo hunt in Nebraska involving no less than General Custer, Buffalo Bill Cody and the Grand Duke Alexis of Russia, the latter had been presented with an ornate No. 3 Smith & Wesson of the Russian pattern. He emptied his pistol into a buffalo who made off! Custer shot his horse in the head! This was supposed to be a promotional exercise, I hope Cody did better ●

Sources

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It is perhaps only right that this column should start by expressing its best wishes and congratulations to Sotheby's, which celebrated its 250th anniversary in March of this year. Founded in 1744 by a bookseller named Samuel Baker it acquired the name of Sotheby in 1778. For many years it was primarily concerned with selling fine books and fine literary properties including the library of Napoleon.

The nature of the sales held by the company expanded greatly from the late 1950s when Peter Wilson became the senior partner. Under his guidance the house moved into many new markets and turnover increased dramatically. In 1977 it became a private company and later was the target for share take-overs. In 1983 the matter was settled when it was acquired by Mr. A. Taubman and became a private company again. The influx of American business acumen began to change the way in which the rooms were managed and the general effect, at least as seen by the staff, was a much tighter accountant control.

The profitability of each department was checked and where it was felt necessary they were slimmed and any action that was felt appropriate, including numerous redundancies, was taken. One department which was affected was that of arms and armour. As the number of annual sales was falling the section was placed under the control of the Collectors Department but its sales were still held in London.

As the turn-over decreased it was combined with coins and medals and later the sales were removed to the Sussex site at Billingshurst where overheads and running costs were lower. Previously it is fair to say that the Billingshurst sales had been generally seen as less prestigious than those held in London and

many dealers felt that the move downgraded the whole market of arms and armour. A similar feeling was mooted when Christies moved all their arms and armour sales to their 'South Kensington rooms. They appear to have had second thoughts for they have since moved their sales back to the main room in King Street in the West End.

Sotheby's have not felt the need for any such change and probably while this particular market stays rather depressed matters will stay the same. However if the recent apparent upsurge in the market is maintained than it may be that there will be a change.

One factor which could well help the trend to better sales is the appearance of some new material on the market. Auction rooms find their material from two obvious sources, the trade and private clients. Trade material seldom does much for the sale. Much, if not all, of the trader's stock will probably have been on offer previously by other dealers and when it appears in the catalogue will immediately be recognised. Since its inclusion indicates that it didn't sell when on offer it does not usually generate much interest amongst the trade who are generally the main buyers at auction.

What the dealer and collector like to see is fresh, good quality material appearing on the market. In the old days there were still a number of good private collections which eventually found their way into the rooms. There was always the chance of a stately home finding some long-forgotten items which could be sold perhaps to pay for a new roof. The public and general dealers were less aware of antique values in many fields and so were perhaps more ready to place objects in auction.

Today there are very few large, private British collections

of arms and armour although the continent still hoards a few. Television and numerous books have alerted the public and dealers to the likely values of objects. There is thus far less chance of much new material on the market.

These conditions do have a bonus for potential vendors since the keen competition between various rooms means that especially low rates of commission can be bargained for. It is now quite common for those with good pieces to sell to approach all the auctioneers seeking the best offer.

Vendors are well qualified now to make judgements on various rooms and will consider a whole range of possibilities before deciding which rooms to use. The catalogue is an important factor in this decision and rooms seek to produce attractive looking catalogues. However the cost involved is considerable and this generates a chicken-egg situation. If the goods offered are not very good then the catalogue costs must be kept down or profits fall. If the catalogue is not a very good one

it can affect the next sale for a potential client may not be impressed and go elsewhere. It has been said that an auctioneer's most important advert is his last catalogue.

Christie's sale of Sporting Guns on 23 March was marked by a top quality catalogue with superb colour photographs and these included a fresh approach with some fold-out pictures. Spink's sale of Orders, Decorations, Campaign Medals and Militaria which is a joint venture with Christie's also offered a similar quality production with numerous good black and white illustrations.

This sale includes quite a number of uniforms and it is interesting to note how estimates for uniforms are climbing. One cause for this trend is probably the growing interest in re-enactment. At the Victoria Military Society Fair held earlier in March it was interesting to note how the quality of these units' uniforms has increased and many of the people were wearing original pieces.

Frederick Wilkinson

Coming in next month's magazine:

Storming of Dargai 1897

French Forces of the Interior 1944

Japanese Warrior Monks

Roman Archery tested

Boer War Steam Engines

Burgundian Warrior in Syria

and more

Marston Moor

July sees the 30th anniversary of the Battle of Marston Moor, the largest battle to take place on British soil. On July 2nd 1644, the Allied army of English Parliamentarians and Scots Covenanters faced the combined Royalist forces of Prince Rupert and the Marquis of Newcastle's Northern Army – 40,000 troops. The result of the battle saw the defeat of the Royalists in the North of England and was the turning point of the war.

This summer, the Siege of York and the Battle of Marston Moor will be commemorated on the exact date of the original battle by what will be the largest re-enactment ever staged in the UK. The event will take place at Ripley Castle in North Yorkshire – where Cromwell spent the night following the battle – on both the 2nd and 3rd of July 1994 and will feature over 3,000 members of the Sealed Knot Society.

The events will be repeated in full on both Saturday and Sunday. The re-enactment of the Siege of York begins at 11.45 with the besieging army attacking the walls and blowing up St. Mary's Tower. The main battle re-enactment will start at 2.45 pm with the forming up of the armies and close with the final defiant act of the Whitecoated Northern regiments refusing quarter and fighting to the bitter end.



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